D-NF430/NF431

SERVICE MANUAL

Ver. 1.0 2005.12

US Model
UK Model
D-NF430
E Model
D-NF431

Photo: D-NF430

Model Name Using Similar Mechanism	D-NF420/NF421
CD Mechanism Type	CDM-3325ERV2
Optical Pick-up Name	DAX-25EV

SPECIFICATIONS

CD player

System
Compact disc digital audio system

Laser diode properties
Emission duration: Continuous
Laser output: Less than 44.6 µW
(This output is the value measured at a distance of 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

D-A conversion
1-bit quartz time-axis control

Frequency response
20 - 20 000 Hz $^{+1}_{-2}$ dB (measured by JEITA)

Output
Headphones (stereo minijack)
Approx. 15 mW + Approx. 15 mW at 16 Ω

Radio

Frequency range

• NF430: UK*
FM: 87.5 - 108.0 MHz
AM: 531 - 1 602 kHz

• NF431*
9 kHz step:
FM: 87.5 - 108.0 MHz
AM: 531 - 1 602 kHz
10 kHz step:
FM: 87.5 - 108.0 MHz
AM: 530 - 1 710 kHz

• NF430: US*
9 kHz step:
TV: 2 - 13 ch
WB (weather band): 1 - 7 ch
FM: 87.5 - 108.0 MHz
AM: 531 - 1 710 kHz
10 kHz step:
TV: 2 - 13 ch
WB (weather band): 1 - 7 ch
FM: 87.5 - 108.0 MHz
AM: 530 - 1 710 kHz

* For the area code of the model you purchased, check the upper left side of the bar code on the package.

Antenna
FM: Earphones cord antenna
AM: Built-in ferrite bar antenna

General

Power requirements
- LR6 (size AA) battery: 1.5 V DC × 1
- AC power adaptor (DC IN 3 V jack):
  230 V, 50 Hz (NF430: UK)
  230 V, 50/60 Hz (NF431)

Operating temperature
5°C - 35°C (41°F - 95°F)

Dimensions (w/h/d) (excluding projecting parts and controls)
Approx. 137.8 × 31.1 × 137.8 mm
(5 ½ × 1 ¼ × 5 ½ in.)

Mass (excluding accessories)
Approx. 205 g (7.3 oz.)

Supplied Accessories
AC power adaptor (NF430: UK/NF431)
Earphones
Remote (NF430: US/NF431)
Operating instractions

US and foreign patents licensed from Dolby Laboratories.

MPEG Layer-3 audio coding technology and patents licensed from Fraunhofer IIS and Thomson.

Design and specifications are subject to change without notice.

– Continued on next page –

PORTABLE CD PLAYER

9-879-983-01
2005L05-1
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Sony Corporation
Personal Audio Division
Published by Sony Engineering Corporation

SONY®

Battery life [1)]

When using a Sony alkaline battery LR6 (SG) (produced in Japan)		
	G-PROTECTION	
	"1"	"2"
Audio CD	22	20
ATRAC CD [2)]	41	41
MP3 CD [3)]	31	31
RADIO ON	32	

1) Measured value using the JEITA (Japan Electronics and Information Technology Industries Association)
Playing time shown is approximate hours, when you use the player on a flat and stable surface and "POWER SAVE" is set to "ON".
This value varies depending on how the player is used.

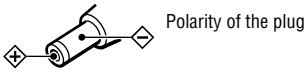
2) Recorded at 48 kbps

3) Recorded at 128 kbps

Notes on the AC power adaptor

- Disconnect all power sources when the player is not to be used for a long time.
- Use only the AC power adaptor supplied. If your player is not supplied with an AC power adaptor, use an AC-E30HG AC power adaptor*. Do not use any other AC power adaptor. It may cause a malfunction.

  * Not available in Australia and some other regions. Ask your dealer for detailed information.



- Do not touch the AC power adaptor with wet hands.
- Connect the AC power adaptor to an easily accessible AC outlet. Should you notice an abnormality in the AC power adaptor, disconnect it from the AC outlet immediately.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

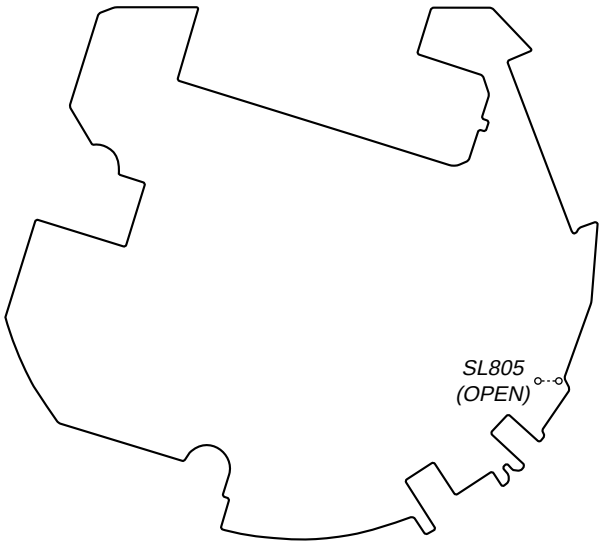
Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

OPERATION CHECK WHEN THE LID IS OPEN

In performing the repair with the power supplied to the set, removing the MAIN board causes the set to be disabled.
In such a case, make a solder bridge to short SL805 (OPEN) on the MAIN board in advance.

– MAIN Board (Component Side) –



LASER DIODE AND FOCUS SEARCH OPERATION CHECK

During normal operation of the equipment, emission of the laser diode is prohibited unless the upper lid is closed while turning on the S801. (push switch type)
The following checking method for the laser diode is operable.

- **Method:**
  Emission of the laser diode is visually checked.
  1. Open the upper lid.
  2. With a disc not set, turn on the S801 with a screwdriver having a thin tip as shown in Fig.1.
  3. Press the [►II] button.
  4. Observing the objective lens, check that the laser diode emits light.
     When the laser diode does not emit light, automatic power control circuit or optical pick-up is faulty.
     In this operation, the objective lens will move up and down 2 times along with inward motion for the focus search.

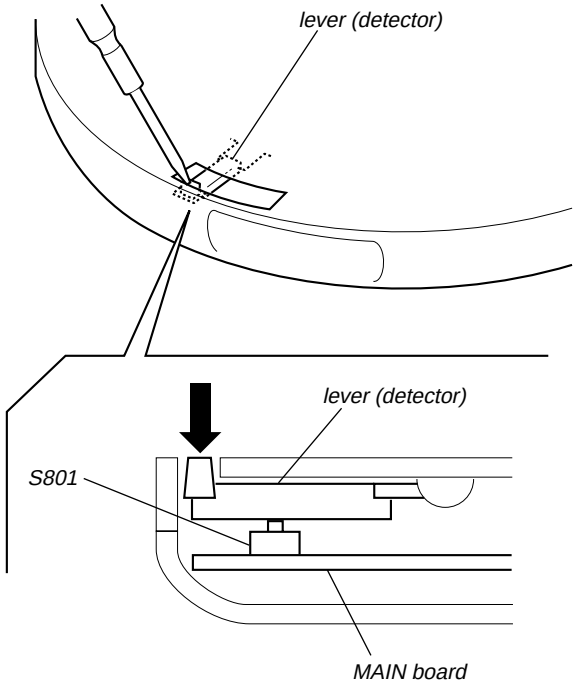


Fig. 1 Method to push the S801

NOTE ON REPLACEMENT OF MAIN BOARD OR EEPROM (IC802)

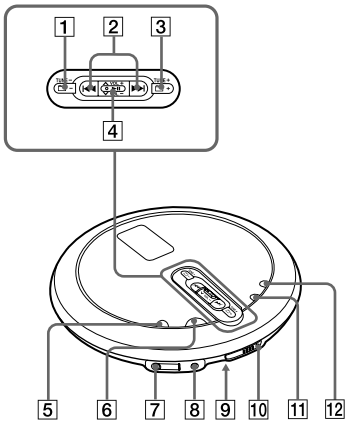
When MAIN board is replaced or EEPROM (IC802) on the MAIN board is replaced, patch processing is needed.
Confirm about information of patch processing to each service headquarters.

SECTION 2
GENERAL

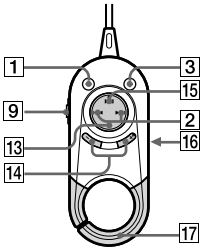
This section is extracted from instruction manual.

Guide to Parts and Controls

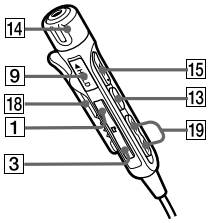
CD player



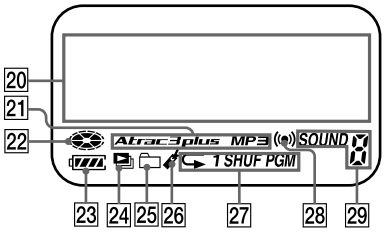
Remote (NF430: US)



Remote (NF431)



Display



1 CD player:
(group) – •TUNE – button
Remote:
(group) – •tune – button

2 I◄◄ /►►I buttons

3 CD player:
(group) + •TUNE + button
Remote:
(group) + •tune + button

4 Jog lever
VOL (volume) +/–
∧/∨
►II (play/pause)*

5 RADIO ON/BAND•MEMORY button

6 ■ (stop)•RADIO OFF button

7 ∩ (headphones) jack

8 DC IN 3 V jack

9 HOLD switch (on the back of the CD player)

10 OPEN switch

11 SEARCH button

12 DISPLAY/MENU button

13 ■ (stop)•RADIO ON/BAND•RADIO OFF button

14 VOL (volumn) +/– buttons (NF430: US)
VOL (volumn) +/– control (NF431)

15 ►II (play/pause)* button

16 Headphones jack (on the back)

17 Hook

18 Clip

19 I◄◄ /►►I•PRESET –/+ buttons

* This button has a tactile dot.

20 Character information display

21 Atrac3plus/MP3 indicator

22 Disc indicator

23 Battery indicator

24 Play list indicator

25 Group indicator

26 Bookmark indicator

27 Play mode indicator

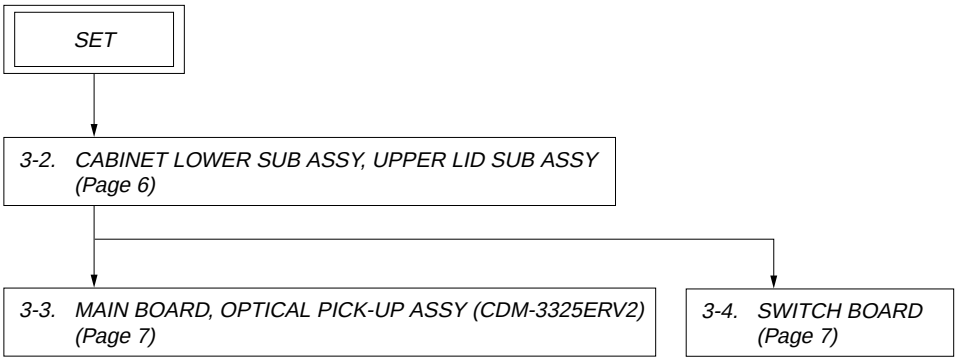
28 Timer indicator

29 Sound indicator

SECTION 3
DISASSEMBLY

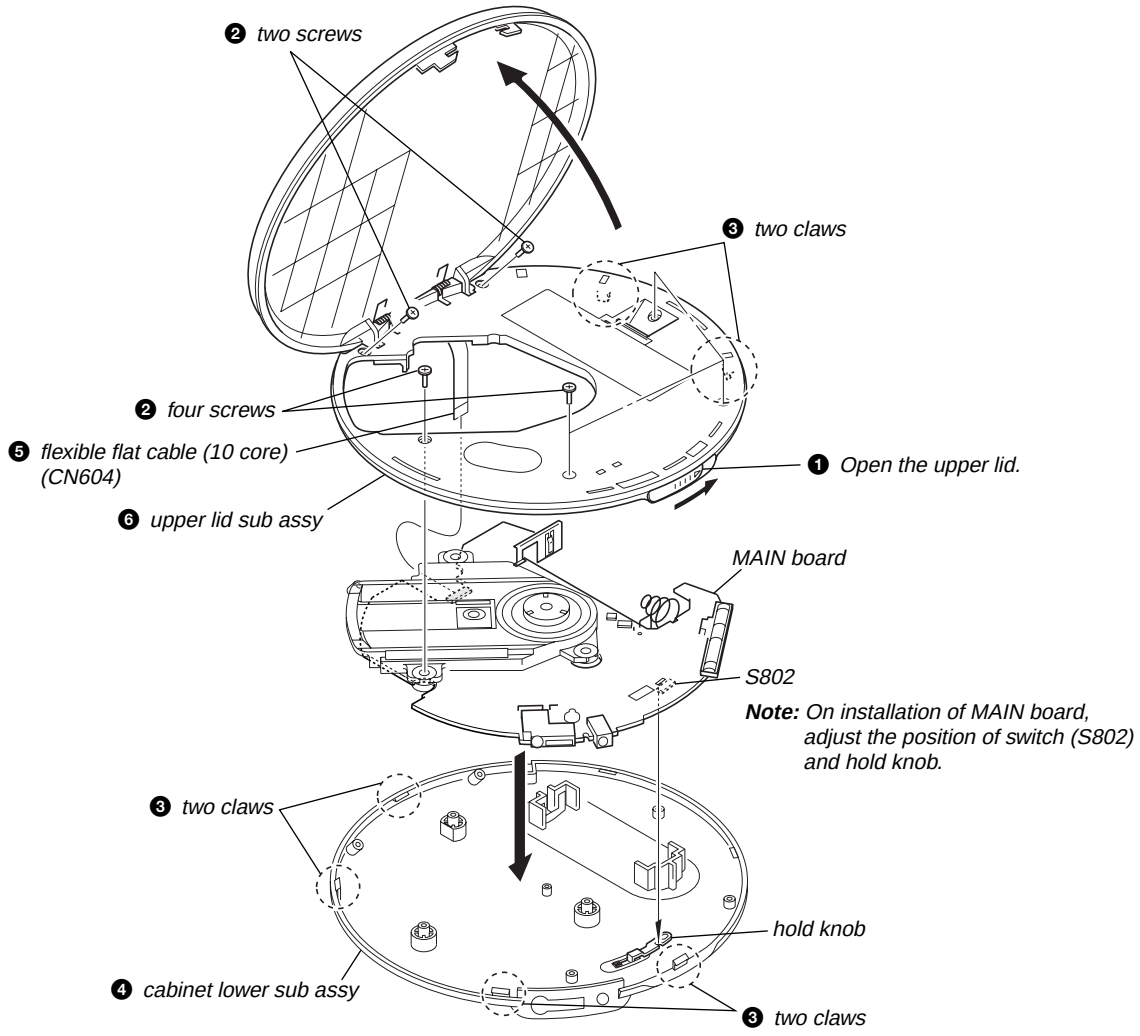
- This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

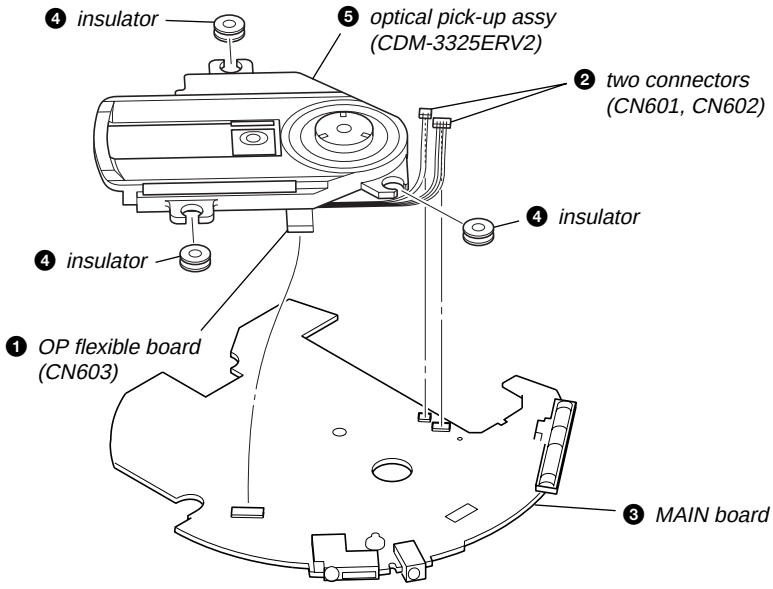

SET
3-2. CABINET LOWER SUB ASSY, UPPER LID SUB ASSY (Page 6)
3-3. MAIN BOARD, OPTICAL PICK-UP ASSY (CDM-3325ERV2) (Page 7)
3-4. SWITCH BOARD (Page 7)

Note: Follow the disassembly procedure in the numerical order given.

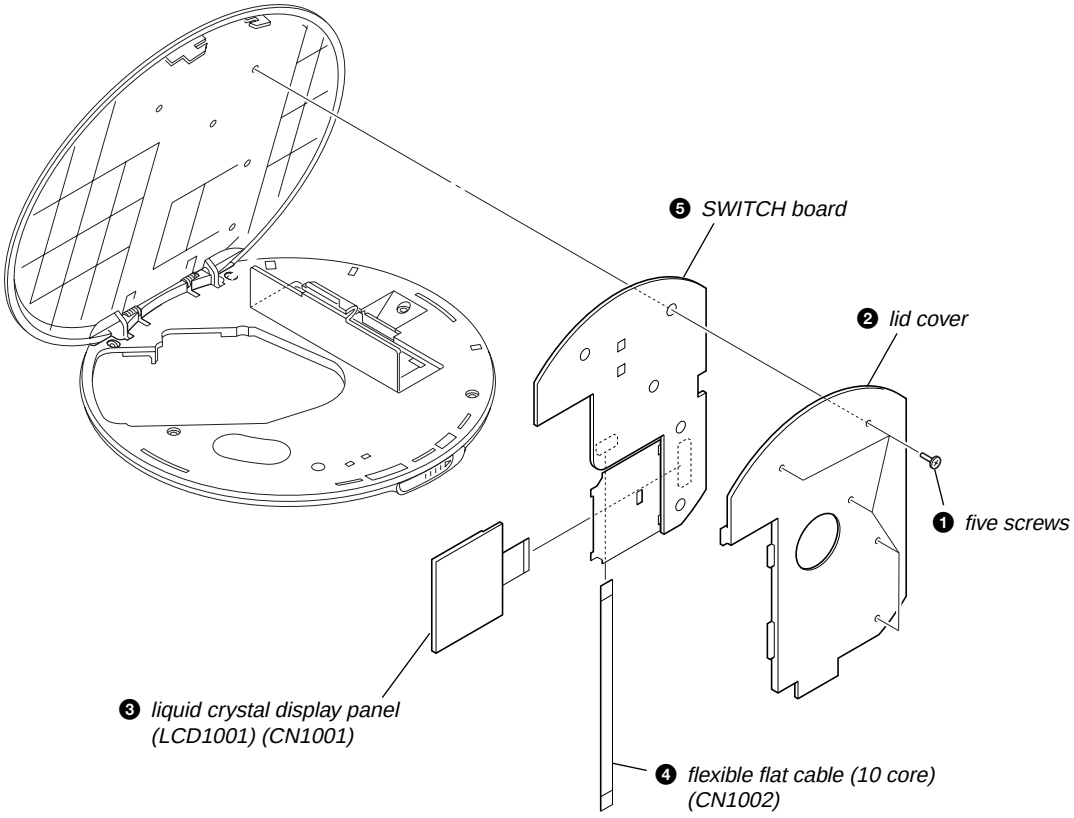
3-2. CABINET LOWER SUB ASSY, UPPER LID SUB ASSY


❷ two screws
❸ two claws
❷ four screws
❺ flexible flat cable (10 core) (CN604)
❻ upper lid sub assy
❶ Open the upper lid.
MAIN board
S802
Note: On installation of MAIN board, adjust the position of switch (S802) and hold knob.
❸ two claws
hold knob
❹ cabinet lower sub assy
❸ two claws

3-3. MAIN BOARD, OPTICAL PICK-UP ASSY (CDM-3325ERV2)



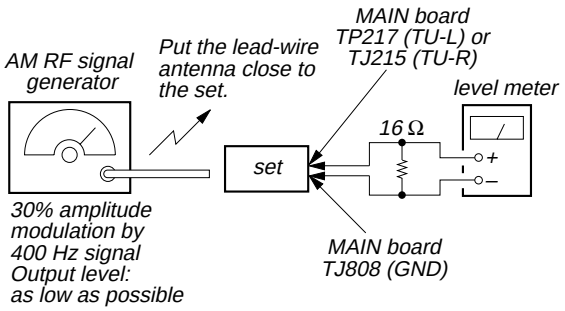
3-4. SWITCH BOARD


❺ SWITCH board
❷ lid cover
❶ five screws
❸ liquid crystal display panel (LCD1001) (CN1001)
❹ flexible flat cable (10 core) (CN1002)

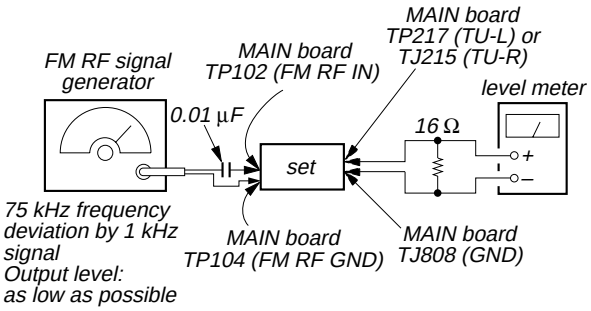
SECTION 4
ELECTRICAL ADJUSTMENTS

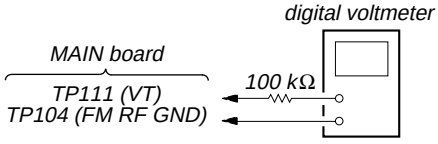
0 dB=1 µV

[AM]
Setting:
Function: RADIO
Band: AM



[FM/TV/WB]
Setting:
Function: RADIO
Band: FM (NF430: UK/NF431)
FM/TV/WB (NF430: US)





- Repeat the procedures in each adjustment several times, and the tracking adjustments should be finally done by the trimmer capacitors.

( ): NF430: UK/NF431

AM IF ADJUSTMENT	
Adjust for a maximum reading on level meter	
T102	620 (621) kHz

( ): NF430: UK/NF431

AM FREQUENCY COVERAGE CONFIRMATION		
Adjustment Part	Frequency Display	Reading in Digital Voltmeter
Confirmation	531 (530) kHz	0.9 ± 0.5 V
Confirmation	1,710 (1,602) kHz	7.2 (6.8) ± 1.0 V

( ): NF430: UK/NF431

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
T101	620 (621) kHz
CT101	1,400 (1,404) kHz

FM FREQUENCY COVERAGE CONFIRMATION		
Adjustment Part	Frequency Display	Reading in Digital Voltmeter
Confirmation	87.5 MHz	5.2 ± 0.8 V
Confirmation	108 MHz	9.0 ± 1.0 V

TV (2 – 6 ch) FREQUENCY COVERAGE CONFIRMATION		
Adjustment Part	Frequency Display	Reading in Digital Voltmeter
Confirmation	2 ch	9.0 ± 0.4 V
Confirmation	6 ch	5.2 ± 0.8 V

(NF430: US)

FM/TV (2 – 6 ch) TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L104	98 MHz

TV (7 – 13 ch) FREQUENCY COVERAGE CONFIRMATION		
Adjustment Part	Frequency Display	Reading in Digital Voltmeter
Confirmation	7 ch	4.7 ± 0.6 V
Confirmation	13 ch	8.0 ± 1.0 V

(NF430: US)

WB FREQUENCY COVERAGE CONFIRMATION		
Adjustment Part	Frequency Display	Reading in Digital Voltmeter
Confirmation	2 ch	3.3 ± 0.5 V

(NF430: US)

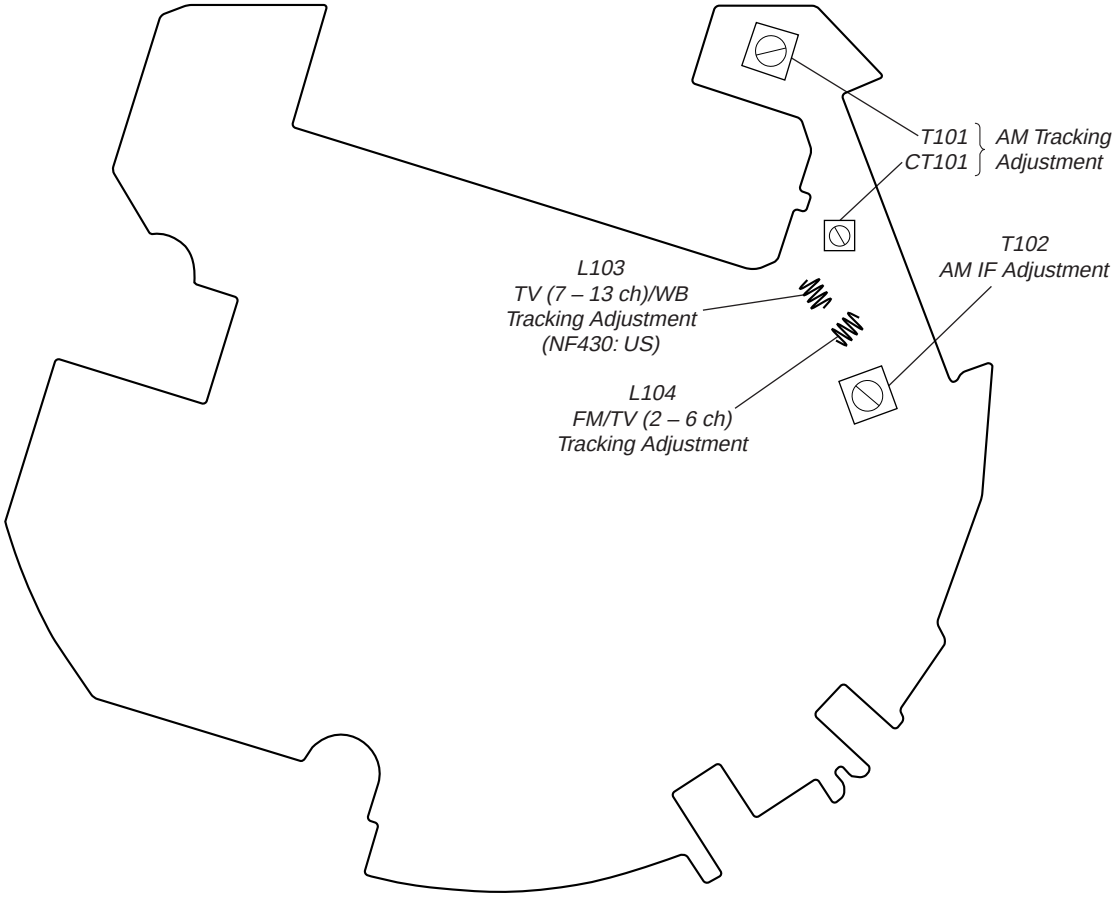
TV (7 – 13 ch)/WB TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L103	10 ch (197.75 MHz)

(NF430: US)

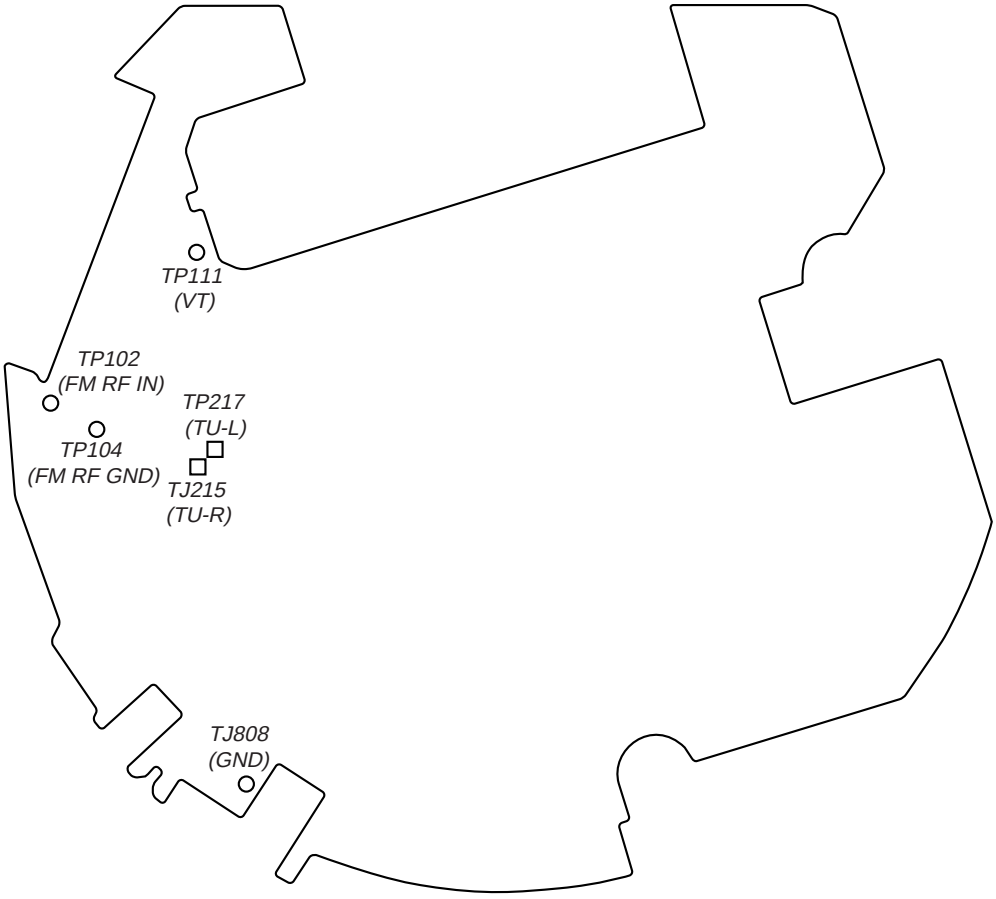
Adjustment and Connecting Location: MAIN board
(See page 9)

Adjustment and Connecting Location:

– MAIN Board (Component Side) –



– MAIN Board (Conductor Side) –



SECTION 5
DIAGRAMS

- **Note for Printed Wiring Boards and Schematic Diagrams**

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ⬚← : indicates side identified with part number.
- ● : Through hole.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

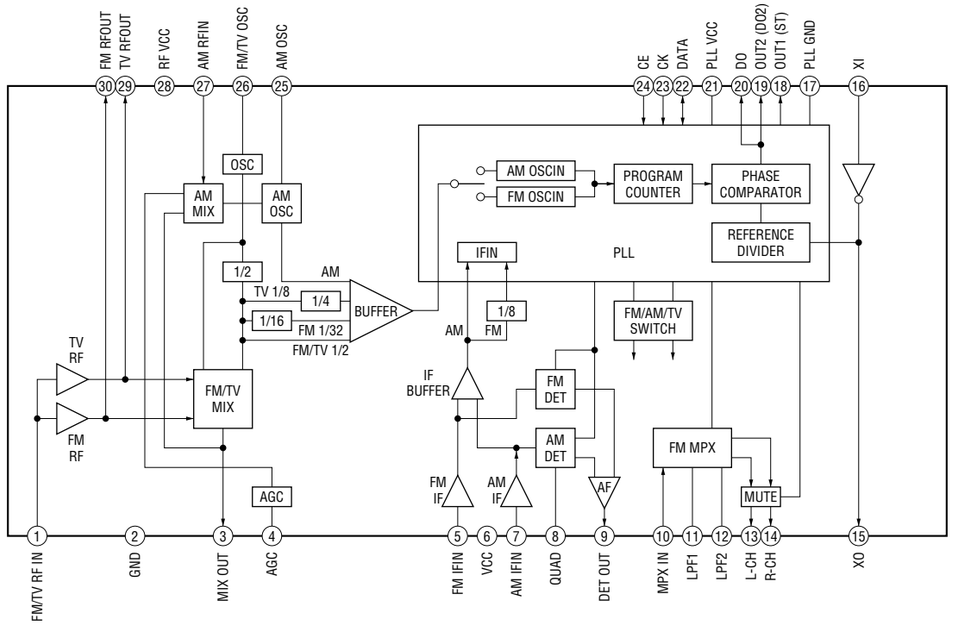
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▬ : B+ Line.
- ▭ : adjustment for repair.
- Power voltage is dc 1.5 V and fed with regulated dc power supply from battery teminal.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
  ( ) : FM
  [ ] : AM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨ : FM/TV (2 – 6 ch)
  ➡ : AM
  ⇨ : TV (7 – 13 ch)/WB

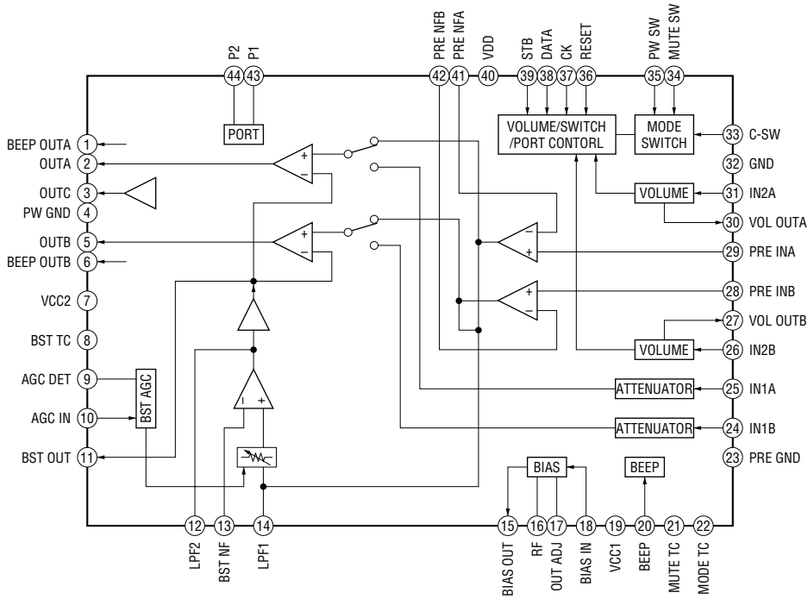
- **IC Block Diagram**

– MAIN Board –

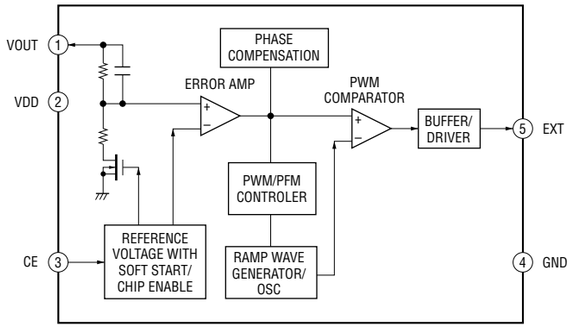
IC101 TB2132FNG



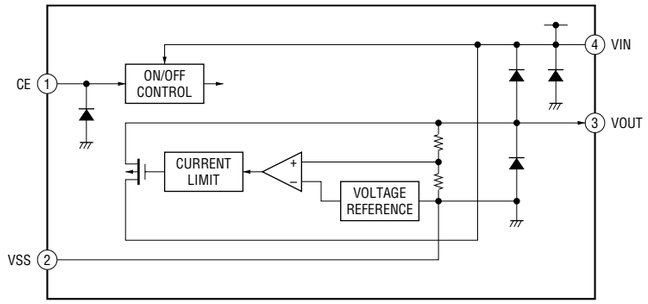
IC201 TB2173FTG



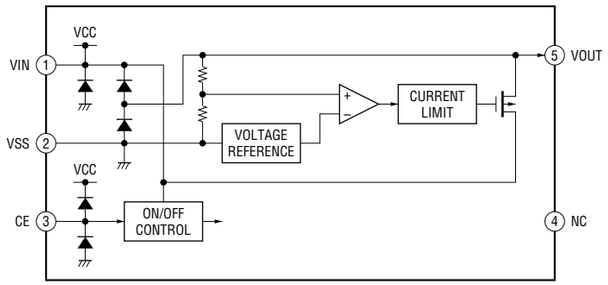
IC250 XC6367A303MRN



IC603 XC6213B212NR



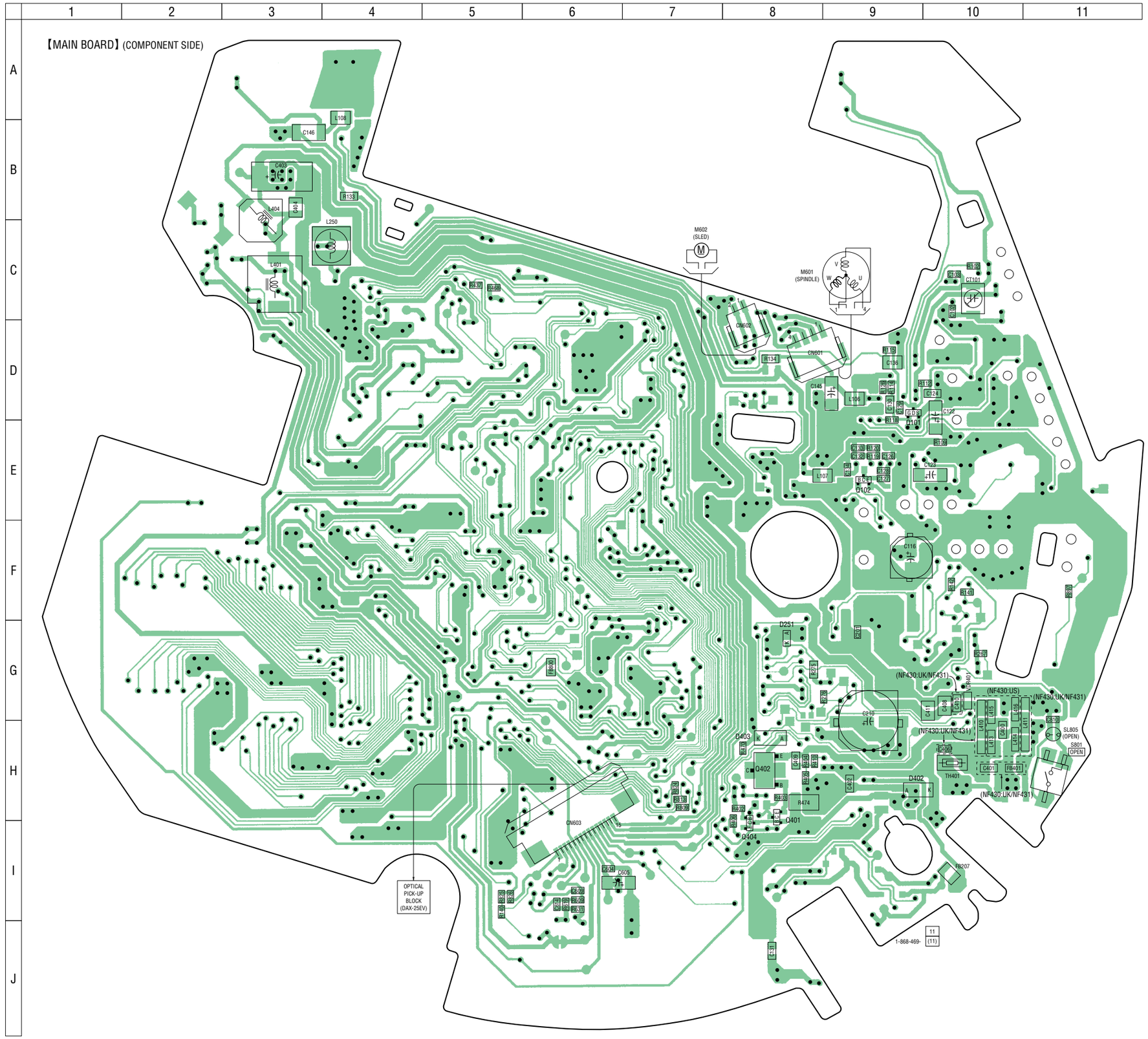
IC803, 841 XC6219B272MR



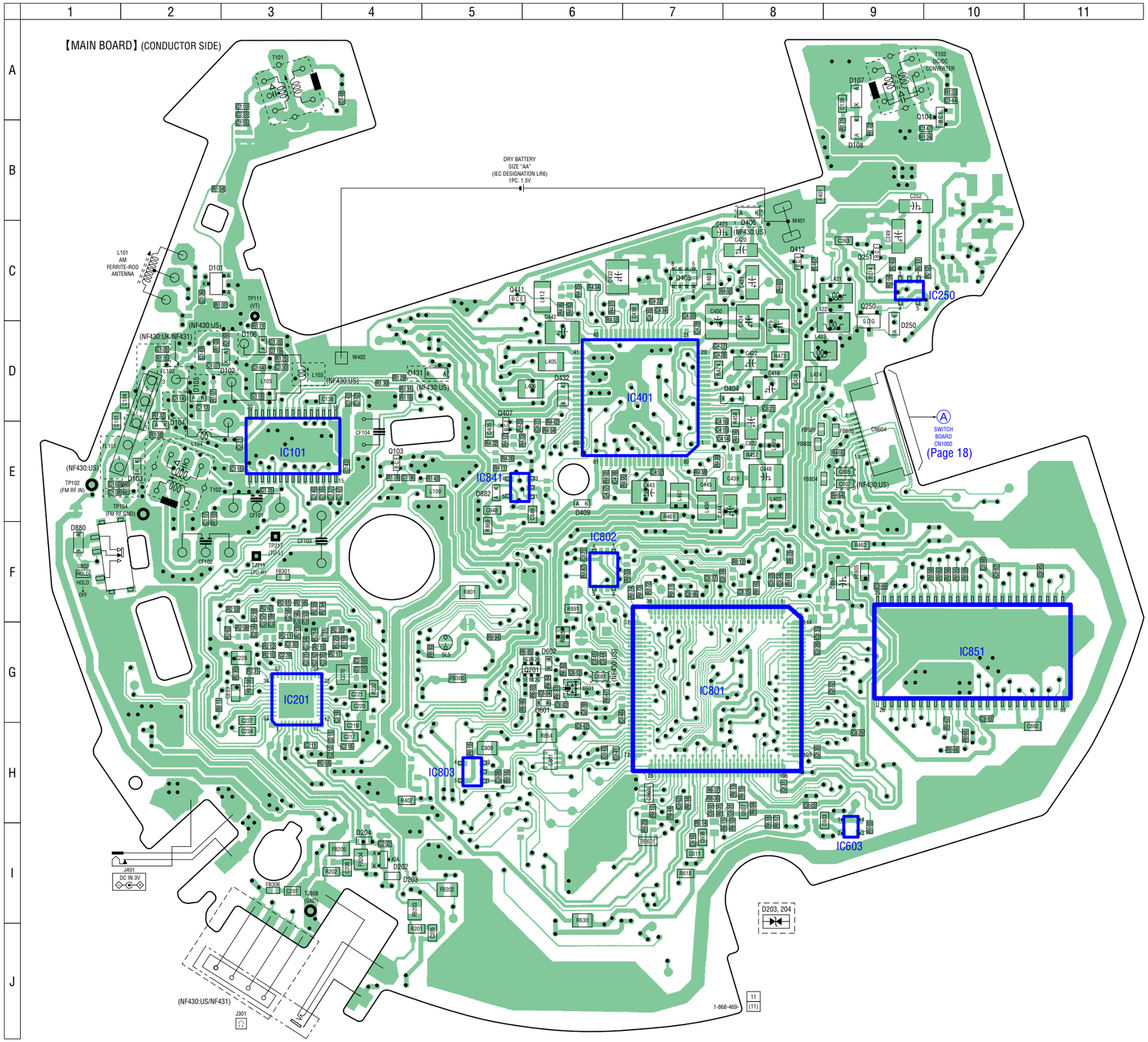
5-1. PRINTED WIRING BOARD – MAIN Board (Component Side) – :Uses unleaded solder.

- **Semiconductor Location**

Ref. No.	Location
D251	G-8
D402	H-9
D403	H-8
Q101	D-9
Q102	E-9
Q401	H-8
Q402	H-8
Q404	I-8



5-2. PRINTED WIRING BOARD – MAIN Board (Conductor Side) – :Uses unleaded solder.



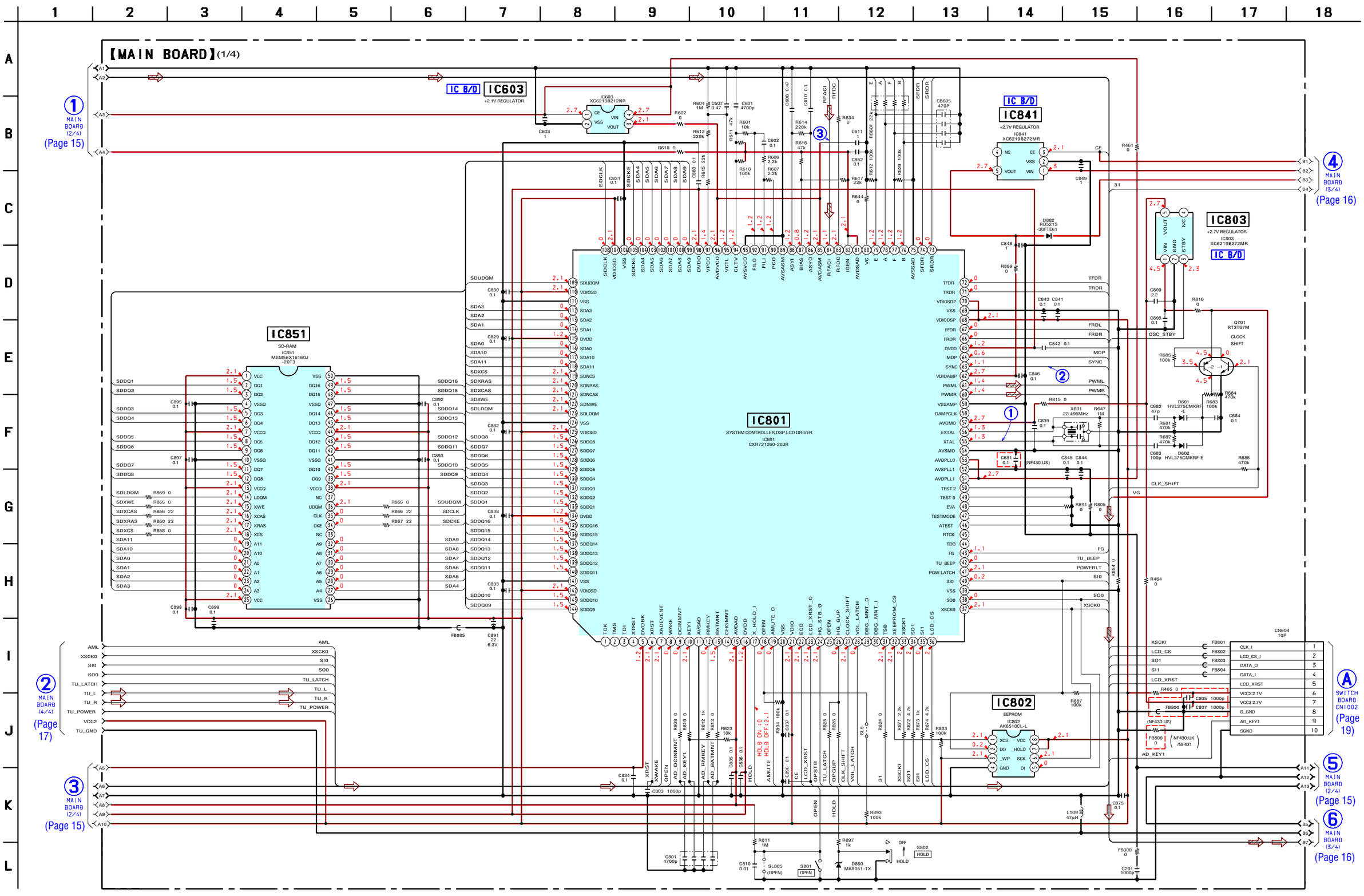
- **Semiconductor Location**

Ref. No.	Location
D101	C-2
D102	D-3
D103	E-2
D104	E-2
D105	D-2
D106	D-3
D107	A-9
D108	B-9
D202	I-4
D203	I-4
D204	I-4
D250	D-9
D404	D-8
D406	B-8
D409	E-6
D431	D-5
D432	D-6
D601	G-6
D602	G-6
D880	F-1
D882	E-5
IC101	E-3
IC201	G-3
IC250	C-9
IC401	D-7
IC603	I-9
IC801	G-7
IC802	F-6
IC803	H-5
IC841	E-5
IC851	G-10
Q103	E-4
Q104	A-10
Q250	D-9
Q251	C-9
Q405	C-7
Q407	E-5
Q411	C-5
Q412	C-8
Q701	G-6

When MAIN board is replaced or EEPROM (IC802) on the MAIN board is replaced, patch processing is needed.
Confirm about information of patch processing to each service headquarters.

5-3. SCHEMATIC DIAGRAM – MAIN Board (1/4) –

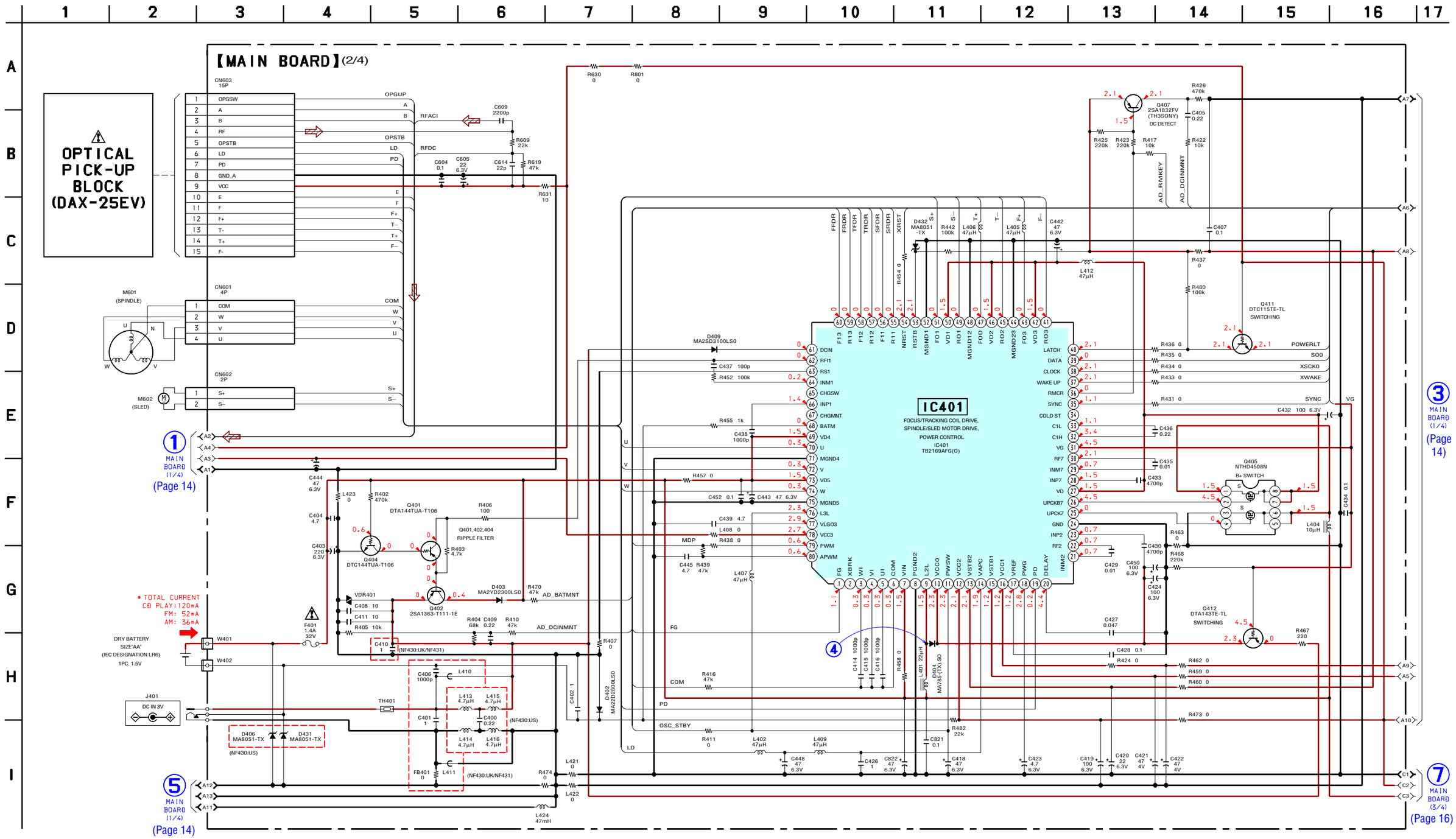
• See page 20 for Waveforms. • See page 11 for IC Block Diagrams. • See page 20 for IC Pin Function Description.



When MAIN board is replaced or EEPROM (IC802) on the MAIN board is replaced, patch processing is needed.
Confirm about information of patch processing to each service headquarters.

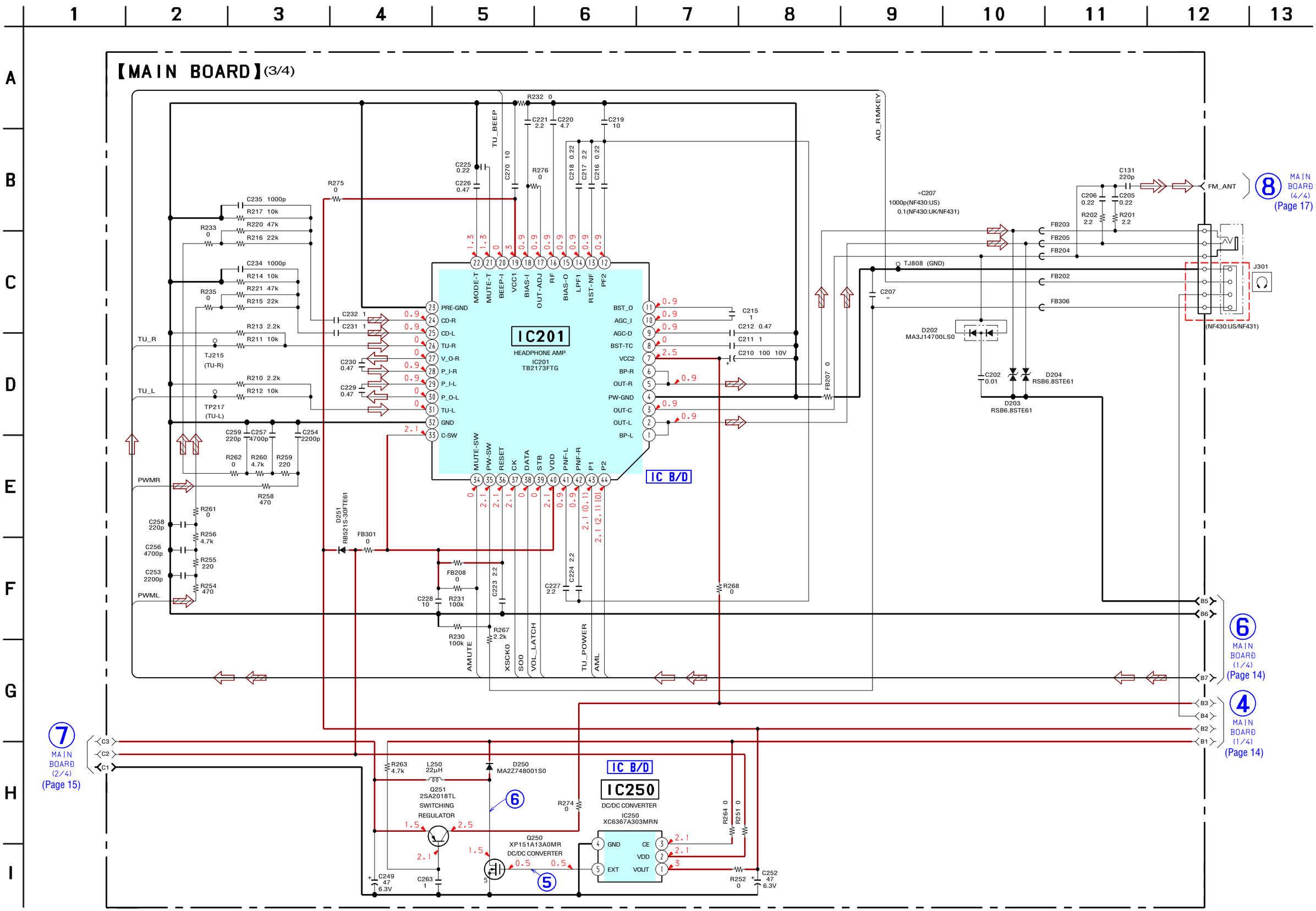
5-4. SCHEMATIC DIAGRAM – MAIN Board (2/4) –

• See page 20 for Waveforms. • See page 20 for IC Pin Function Description.



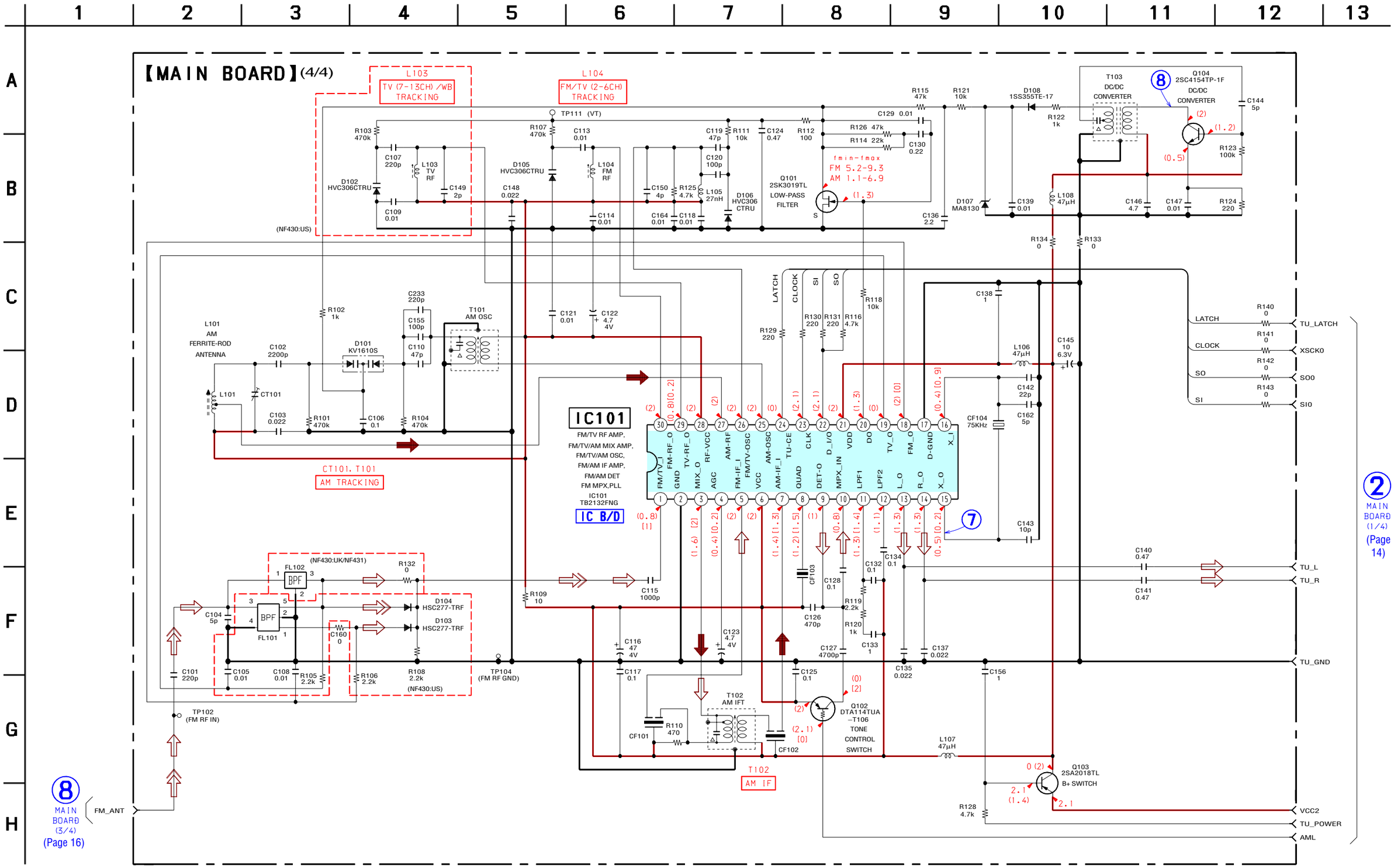
5-5. SCHEMATIC DIAGRAM – MAIN Board (3/4) –

• See page 20 for Waveforms. • See page 11 for IC Block Diagrams.

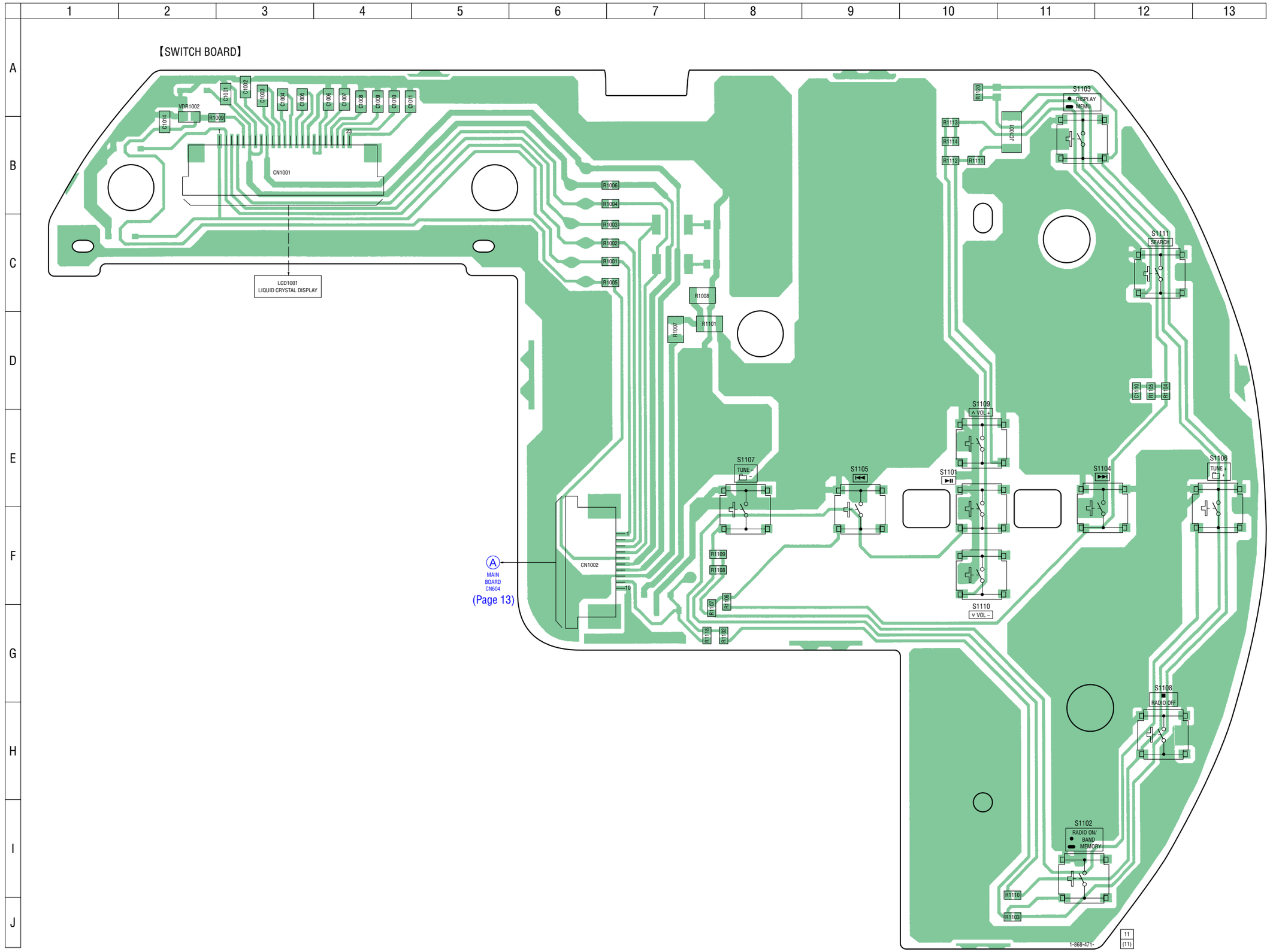


5-6. SCHEMATIC DIAGRAM – MAIN Board (4/4) –

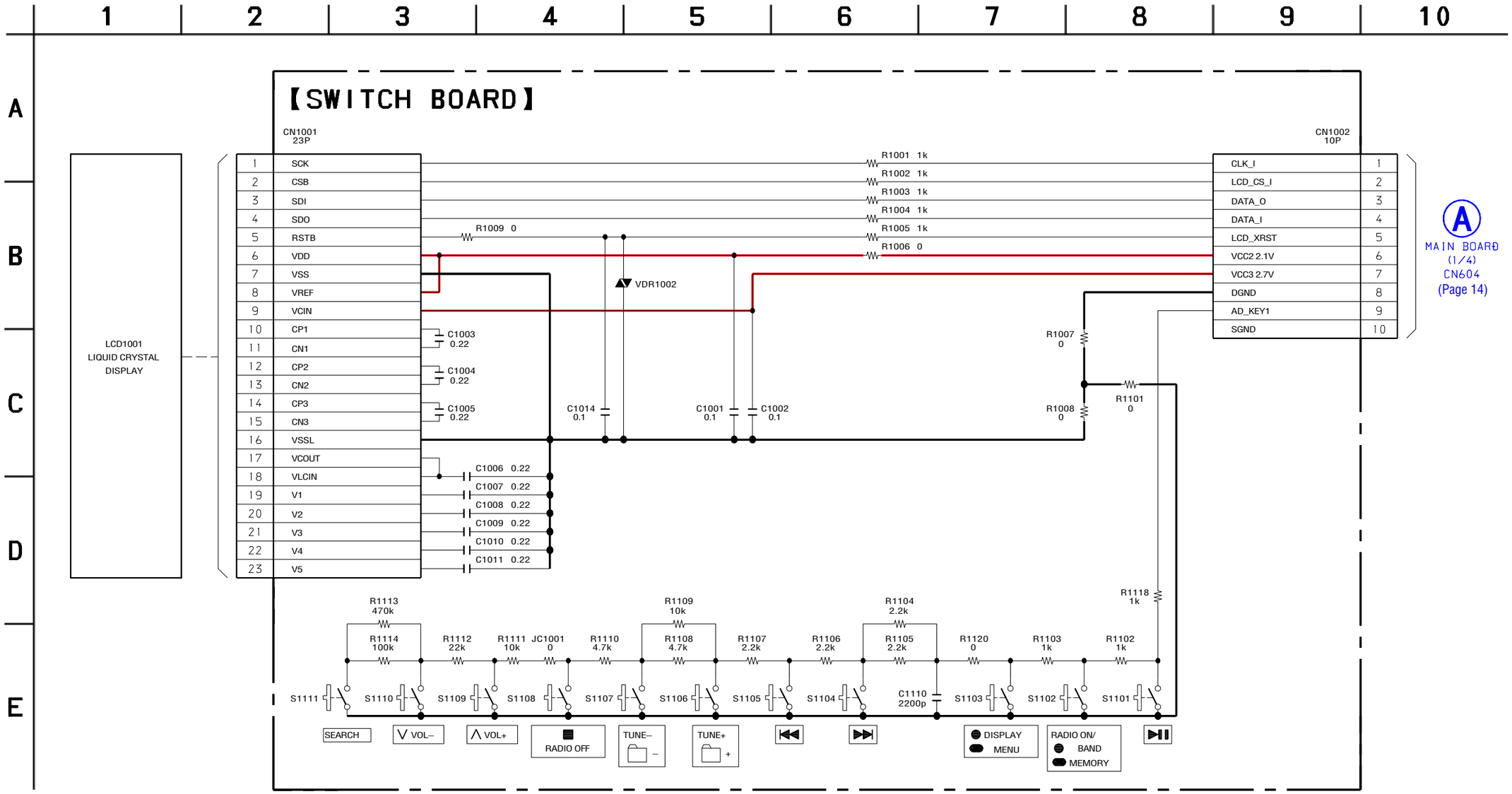
• See page 20 for Waveforms. • See page 11 for IC Block Diagrams.



5-7. PRINTED WIRING BOARD – SWITCH Board – :Uses unleaded solder.



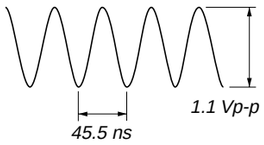
5-8. SCHEMATIC DIAGRAM – SWITCH Board –



- **Waveforms**

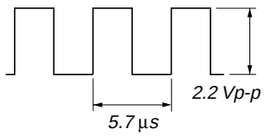
– MAIN Board –

① IC801 ㊺ (XTAL)



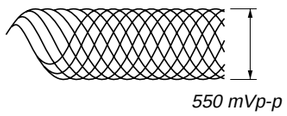
500 mV/DIV, 20 ns/DIV

② IC801 ㊸ (SYNC) (CD play mode)



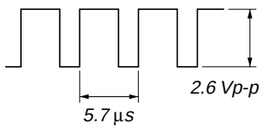
1 V/DIV, 2 µs/DIV

③ IC801 ㊹ (RFACI) (CD play mode)



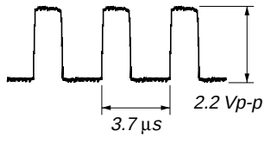
200 mV/DIV, 200 ns/DIV

④ IC401 ⑨ (L2L)



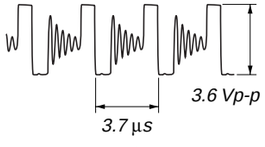
1 V/DIV, 2 µs/DIV

⑤ IC250 ⑤ (EXT), Q250 (Gate)



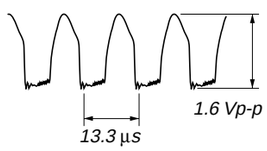
1 V/DIV, 1 µs/DIV

⑥ Q250 (Drain)



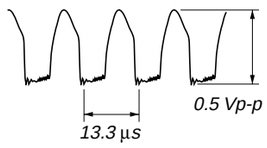
2 V/DIV, 1 µs/DIV

⑦ IC101 ⑮ (X_O) (FM mode)



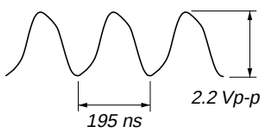
1 V/DIV, 5 µs/DIV

⑦ IC101 ⑮ (X_O) (AM mode)



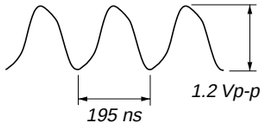
200 mV/DIV, 5 µs/DIV

⑧ Q104 (Collector) (FM mode)



1 V/DIV, 50 ns/DIV

⑧ Q104 (Collector) (AM mode)



500 mV/DIV, 50 ns/DIV

- **IC Pin Function Description**

MAIN BOARD IC401 TB2169AFG (O)
(FOCUS/TRACKING COIL DRIVE, SPINDLE/SLED MOTOR DRIVE, POWER CONTROL)

Pin No.	Pin Name	I/O	Description
1	FG	O	FG signal output to the system controller
2	XBRK	I	Brake signal input terminal Not used
3	WI	I	Comparator (W) positive pole input terminal
4	VI	I	Comparator (V) positive pole input terminal
5	UI	I	Comparator (U) positive pole input terminal
6	COM	I	Comparator (U/V/W) negative pole input terminal
7	VIN	-	Dry battery connection terminal
8	PGND2	-	Ground terminal
9	L2L	-	Coil connection terminal
10	VCC0	O	Power supply voltage output terminal (+2.3V)
11	PWSW	O	OSC standby signal output terminal
12	VCC2	O	Power supply voltage output terminal (+2.1V)
13	VSTB2	O	Power supply voltage output terminal (+2.1V)
14	VAPC	O	Power supply voltage output terminal (+1.95V)
15	VSTB1	O	Power supply voltage output terminal (+1.25V)
16	VCC1	O	Power supply voltage output terminal (+1.2V)
17	VREF	O	Reference voltage output terminal
18	PWG	I	VAPC power supply on/off control signal input terminal
19	PD	O	Error amplifier output terminal for APC circuit
20	DELAY	I	Delay control signal input terminal
21	INM2	O	Error amplifier output terminal for VCC0 switching power supply circuit
22	RF2	-	Error amplifier connection terminal for VCC0 switching power supply circuit
23	INP2	I	Error amplifier non-invert input of VCC0 switching power supply circuit
24	GND	-	Ground terminal
25	UPCK7	O	FET (bottom side) drive signal output for VD switching power supply circuit
26	UPCKB7	O	FET (top side) drive signal output for VD switching power supply circuit
27	VD	I	Feed back voltage input terminal for VD switching power supply circuit
28	INP7	I	Error amplifier non-invert input for VD switching power supply circuit
29	INM7	O	Error amplifier output terminal for VD switching power supply circuit
30	RF7	-	Error amplifier connection terminal for VD switching power supply circuit
31	VG	O	VG power supply output terminal (+4.5V)
32	C1H	-	Capacitor connection terminal for charge pump (high side) of VG power supply circuit
33	C1L	-	Capacitor connection terminal for charge pump (low side) of VG power supply circuit
34	COLD ST	O	Not used
35	SYNC	I	176.4 kHz clock signal input from the system controller
36	RMCR	O	Wake up signal output to the system controller
37	WAKE	I	Wake up signal input from the system controller
38	CLOCK	I	Serial clock signal input from the system controller
39	DATA	I	Serial data input from the system controller
40	LATCH	I	Latch signal input from the system controller
41	RO3	O	Focus coil drive signal (-) output terminal
42	VD3	-	Power supply terminal (for focus coil drive)
43	FO3	O	Focus coil drive signal (+) output terminal
44	MGND23	-	Ground terminal (for focus/tracking coil drive)
45	RO2	O	Tracking coil drive signal (-) output terminal

Pin No.	Pin Name	I/O	Description
46	VD2	-	Power supply terminal (for tracking coil drive)
47	FO2	O	Tracking coil drive signal (+) output terminal
48	MGND12	-	Ground terminal (for tracking coil drive and sled motor drive)
49	RO1	O	Sled motor drive signal (-) output terminal
50	VD1	-	Power supply terminal (for sled motor drive)
51	FO1	O	Sled motor drive signal (+) output terminal
52	MGND1	-	Ground terminal (for sled motor drive)
53	RSTB	I	Reset signal input terminal
54	NRST	O	System reset signal output to the system controller "L": reset
55	RI1	I	Sled servo drive signal (-) input from the system controller
56	FI1	I	Sled servo drive signal (+) input from the system controller
57	RI2	I	Tracking servo drive signal (-) input from the system controller
58	FI2	I	Tracking servo drive signal (+) input from the system controller
59	RI3	I	Focus servo drive signal (-) input from the system controller
60	FI3	I	Focus servo drive signal (+) input from the system controller
61	DCIN	-	AC adapter power supply connection terminal
62	RFI1	O	Battery charge circuit error amplifier output for rechargeable battery
63	RS1	-	Connection terminal of sense resistor and external resistor for internal oscillation circuit
64	INM1	O	Battery charge circuit error amplifier output terminal for rechargeable battery
65	CHGSW	O	Battery charge control signal output terminal Not used
66	INP1	I	Battery charge circuit error amplifier non-invert input for rechargeable battery
67	CHGMON	O	Charge voltage monitor output terminal Not used
68	BATM	-	Battery minus terminal
69	VD4	-	Power supply terminal (for spindle motor drive U phase)
70	U	O	Spindle motor drive U phase output terminal
71	MGND4	-	Ground terminal (for spindle motor drive U/V phase)
72	V	O	Spindle motor drive V phase output terminal
73	VD5	-	Power supply terminal (for spindle motor drive V/W phase)
74	W	O	Spindle motor drive W phase output terminal
75	MGND5	-	Ground terminal (for spindle motor drive W phase)
76	L3L	-	Coil connection terminal
77	VLGO3	-	Capacitor connection terminal for doubler capacitor
78	VCC3	O	Power supply voltage output terminal (+2.7V)
79, 80	PWM, APWM	I	Spindle motor servo drive signal input from the system controller

MAIN BOARD IC801 CXR721260-203R (SYSTEM CONTROLLER, DSP, LCD DRIVER)

Pin No.	Pin Name	I/O	Description
1	TCK	I	Clock signal input terminal Not used
2	TMS	I	Mode select signal input terminal Not used
3	TDI	I	Data input terminal Not used
4	XTRST	I	Reset signal input terminal Not used
5	DVDBK	-	Power supply terminal (+1.2V) (for back up core)
6	XRST	I	System reset signal input from the power control "L": reset
7	XADEVENT	O	Wake up signal output to the power control
8	CASINO_WAKE	I	CD lid open/close switch input terminal "L": close, "H": open
9	DCINMNT	I	DC input voltage monitor input terminal
10	KEY1	I	Top panel key input terminal (A/D input)
11	AVSAD	-	Ground terminal
12	RMKEY	I	Remote commander key input terminal (NF430: US and NF431 models only)
13	BATMNT	I	Battery voltage monitor input terminal
14	CHGMNT	I	Charge voltage monitor input terminal Not used
15	AVDAD	-	Power supply terminal (+2V) (for A/D converter)
16	DVDD	-	Power supply terminal (+1.2V) (for core)
17	X_HOLD_I	I	HOLD switch input terminal "L": hold on
18	OPEN	I/O	Not used
19	AMUTE_O	O	Audio muting on/off control signal output to the headphone amplifier "H": muting on
20	VSS	-	Ground terminal
21	VDIO	-	Power supply terminal (+2V) (for I/O)
22	ECO	O	Chip enable signal output to the power supply circuit
23	LCD_XRST_O	O	Reset signal output to the liquid crystal display "L": reset
24	HG_STB_O	O	Strobe signal output to the optical pick-up block
25	OPEN	I/O	Not used
26	HG_GUP	O	Gain-up signal output to the optical pick-up block
27	CLOCK_SHIFT	O	Tuner clock shift signal output terminal
28	VOL_LATCH	O	Latch signal output to the headphone amplifier
29	DBG_MNT_O	O	Not used
30	DBG_MNT_I	I	Not used
31	TSB	I/O	Communication two-way data bus with remote commander (NF430: US and NF431 models only)
32	XEEPROM_CS	O	Chip select signal output to the EEPROM
33	XSCK1	O	Serial clock signal output to the liquid crystal display
34	SO1	O	Serial data output to the liquid crystal display
35	SI1	I	Serial data input from the liquid crystal display
36	LCD_CS	O	Chip select signal output to the liquid crystal display
37	SCK0	O	Serial clock signal output to the FM/AM/TV tuner, power control and EEPROM
38	SO0	O	Serial data output to the FM/AM/TV tuner, power control and EEPROM
39	VSS	-	Ground terminal
40	SI0	I	Serial data input from the FM/AM/TV tuner and EEPROM
41	POW.LATCH	O	Latch signal output to the power control
42	TU_BEEP	O	Beep signal output to the headphone amplifier
43	FG	I	FG signal input from the motor/coil drive
44	TDO	O	Data output terminal Not used
45	RTCK	O	Not used
46	ATEST	I	Not used

Pin No.	Pin Name	I/O	Description
47	TESTMODE	I	Not used
48	EVA	I	Not used
49, 50	TEST 3, TEST 2	I	Not used
51	AVDPLL1	-	Power supply terminal (+2.6V) (for PLL)
52	AVSPLL1	-	Ground terminal
53	AVDPLL0	-	Power supply terminal (+2.6V) (for PLL)
54	AVSMO	-	Ground terminal
55	XTAL	O	System clock output terminal (22.496 MHz)
56	EXTAL	I	System clock input terminal (22.496 MHz)
57	AVDMO	-	Power supply terminal (+2.6V) (for I/O)
58	DAMPCLK	O	Not used
59	VSSAMP	-	Ground terminal
60	PWMR	O	PWM audio signal output to the headphone amplifier (R-ch)
61	PWML	O	PWM audio signal output to the headphone amplifier (L-ch)
62	VDIOAMP	-	Power supply terminal (+2.6V) (for I/O)
63	SYNC	O	176.4 kHz clock signal output to the power control
64	MDP	O	Spindle motor servo drive signal output to the motor/coil drive
65	DVDD	-	Power supply terminal (+1.2V) (for core)
66	FRDR	O	Focus servo drive signal (-) output to the motor/coil drive
67	FFDR	O	Focus servo drive signal (+) output to the motor/coil drive
68	VDIODSP	-	Power supply terminal (+2V) (for I/O)
69	VSS	-	Ground terminal
70	VDIOSD2	-	Power supply terminal (+2V) (for I/O)
71	TRDR	O	Tracking servo drive signal (-) output to the motor/coil drive
72	TFDR	O	Tracking servo drive signal (+) output to the motor/coil drive
73	SRDR	O	Sled servo drive signal (-) output to the motor/coil drive
74	SFDR	O	Sled servo drive signal (+) output to the motor/coil drive
75	AVSSAD	-	Ground terminal
76	B	I	B signal input from the optical pick-up block
77	F	I	F signal input from the optical pick-up block
78	A	I	A signal input from the optical pick-up block
79	E	I	E signal input from the optical pick-up block
80	VC	I	Middle point voltage input terminal Not used
81	AVDSAD	-	Power supply terminal (+2V) (for servo A/D converter)
82	IGEN	I	Stabilized current input for operational amplifiers
83	RFDC	I	RF signal input from the optical pick-up block
84	RFACI	I	EFM signal input from the optical pick-up block
85	AVDASM	-	Power supply terminal (+2V) (for asymmetry)
86	ASYO	O	EFM full-swing output terminal
87	BIAS	I	Asymmetry circuit constant current input terminal
88	ASYI	I	Asymmetry comparator voltage input terminal
89	AVSASM	-	Ground terminal
90	PCO	O	Charge pump output terminal for master PLL
91	FILI	I	Filter input terminal for master PLL
92	FILO	O	Filter output terminal for master PLL
93	AVSVCO	-	Ground terminal
94	CLTV	I	Internal VCO control voltage input terminal

Pin No.	Pin Name	I/O	Description
95	VCTL	I	VCO control voltage input terminal for the wideband EFM PLL
96	AVDVCO	-	Power supply terminal (+2V) (for VCO)
97	VPCO	O	Charge pump output terminal for the wideband EFM PLL
98	DVDD	-	Power supply terminal (+1.2V) (for core)
99 to 104	SDA9 to SDA4	O	Address signal output to the SD-RAM
105	SDCKE	O	Clock enable signal output to the SD-RAM
106	VSS	-	Ground terminal
107	VDIOSD	-	Power supply terminal (+2V) (for I/O)
108	SDCLK	O	Clock signal output to the SD-RAM
109	SDUDQM	O	Upper byte input/output mask signal output to the SD-RAM
110	VDIOSD	-	Power supply terminal (+2V) (for I/O)
111	VSS	-	Ground terminal
112 to 114	SDA3 to SDA1	O	Address signal output to the SD-RAM
115	DVDD	-	Power supply terminal (+1.2V) (for core)
116 to 118	SDA0, SDA10, SDA11	O	Address signal output to the SD-RAM
119	SDNCS	O	Chip select signal output to the SD-RAM
120	SDNRAS	O	Row address strobe signal output to the SD-RAM
121	SDNCAS	O	Column address strobe signal output to the SD-RAM
122	SDNWE	O	Write enable signal output to the SD-RAM
123	SDLDQM	O	Lower byte input/output mask signal output to the SD-RAM
124	VSS	-	Ground terminal
125	VDIOSD	-	Power supply terminal (+2V) (for I/O)
126 to 133	SDDQ8 to SDDQ1	I/O	Two-way data bus with the SD-RAM
134	DVDD	-	Power supply terminal (+1.2V) (for core)
135 to 140	SDDQ16 to SDDQ11	I/O	Two-way data bus with the SD-RAM
141	VSS	-	Ground terminal
142	VDIOSD	-	Power supply terminal (+2V) (for I/O)
143, 144	SDDQ10, SDDQ9	I/O	Two-way data bus with the SD-RAM

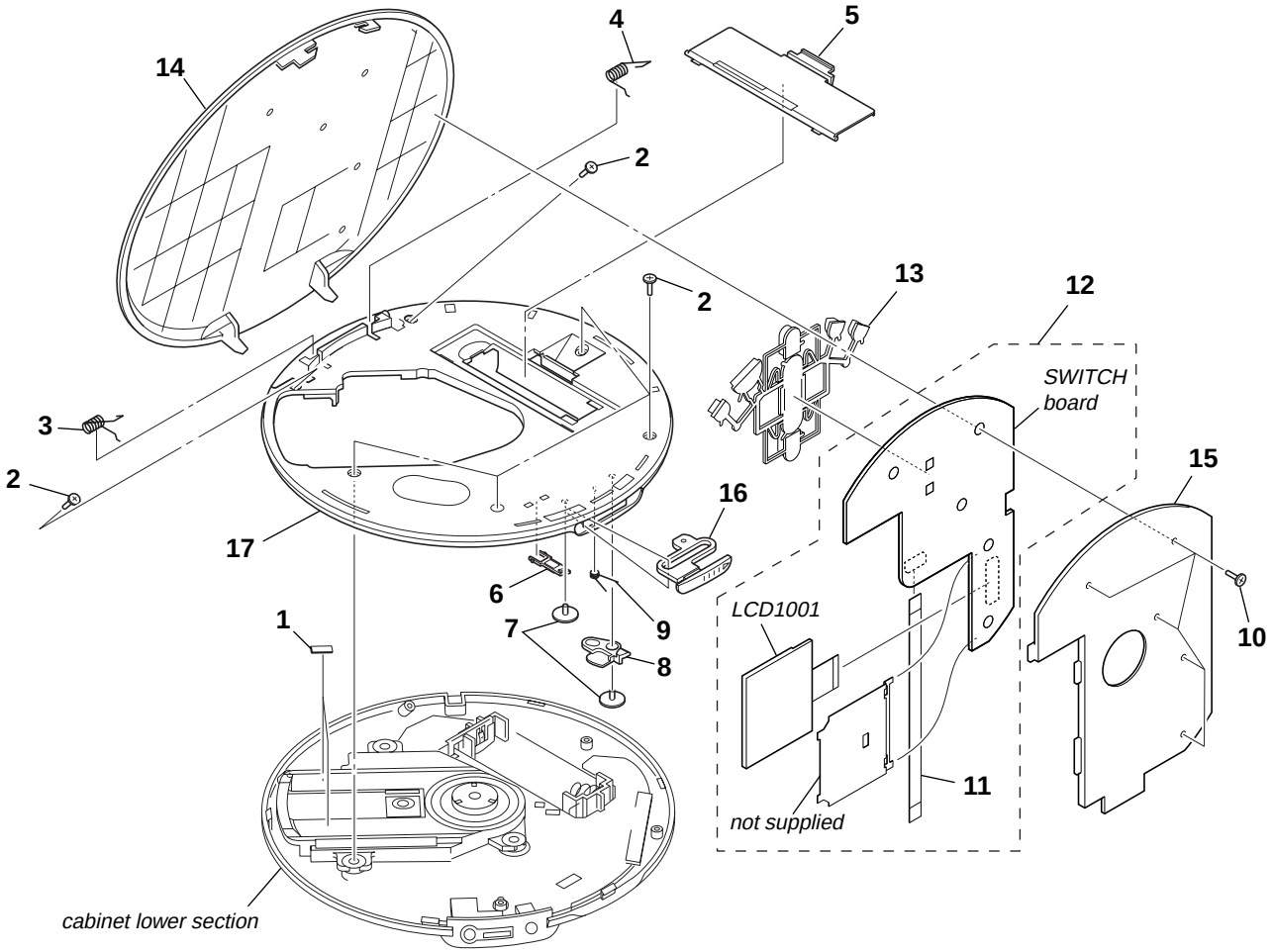
SECTION 6
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

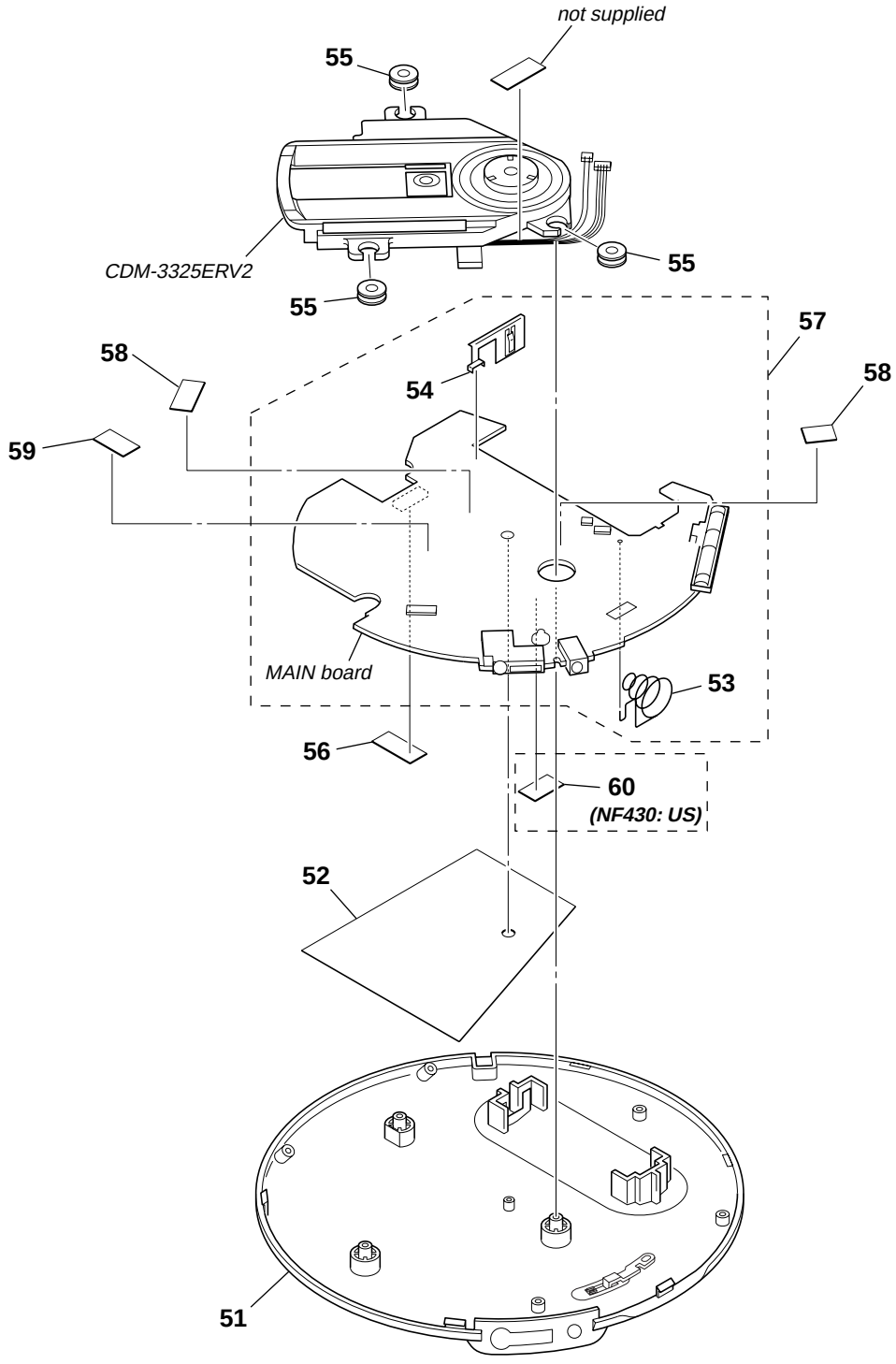
6-1. UPPER LID SECTION



Ref. No.	Part No.	Description	Remark
1	3-252-725-01	SPACER, CDM	
2	3-254-058-11	SCREW	
3	2-657-348-01	SPRING, FULL OPEN (L)	
4	2-657-349-01	SPRING, FULL OPEN (R)	
5	2-659-301-01	LID, BATTERY CASE (for BLACK, BLUE)	
5	2-659-301-11	LID, BATTERY CASE (for SILVER)	
6	3-263-960-02	LEVER (DETECTOR)	
7	3-034-792-11	SCREW, TAPPING (B2.0)	
8	2-187-929-01	LEVER (OPEN)	
9	2-187-930-01	SPRING (OPEN)	
10	3-254-082-01	SCREW (for SILVER)	
10	3-254-082-11	SCREW (for BLACK, BLUE)	
11	1-831-830-11	FLEXIBLE FLAT CABLE (10 CORE)	
12	A-1152-105-A	SWITCH BOARD, COMPLETE	
13	X-2108-067-1	BUTTON ASSY (for BLACK)	
13	X-2108-068-1	BUTTON ASSY (for SILVER)	
13	X-2108-069-1	BUTTON ASSY (for BLUE)	

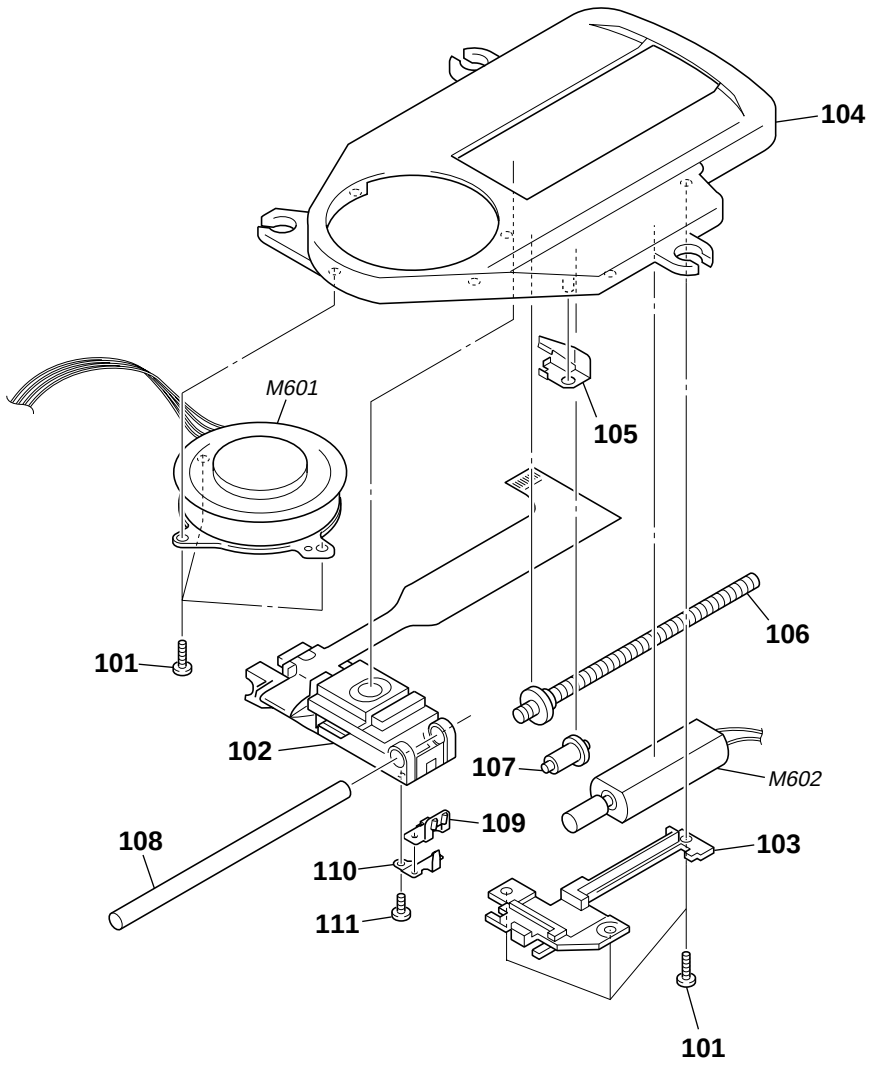
Ref. No.	Part No.	Description	Remark
14	X-2108-060-1	UPPER LID SUB ASSY (for BLACK, BLUE)	(NF430: US)
14	X-2108-061-1	UPPER LID SUB ASSY (for BLACK)	(NF430: UK)
14	X-2108-062-1	UPPER LID SUB ASSY (for SILVER)	(NF430: UK)
14	X-2108-063-1	UPPER LID SUB ASSY (for BLUE)	(NF430: UK)
14	X-2108-064-1	UPPER LID SUB ASSY (for BLACK)	(NF431)
14	X-2108-065-1	UPPER LID SUB ASSY (for SILVER)	(NF431)
14	X-2108-066-1	UPPER LID SUB ASSY (for BLUE)	(NF431)
15	2-654-537-01	COVER, LID (for BLACK)	
15	2-654-537-11	COVER, LID (for SILVER)	
15	2-654-537-21	COVER, LID (for BLUE)	
16	2-187-928-31	KNOB (OPEN) (for BLACK, BLUE)	
16	2-187-928-41	KNOB (OPEN) (for SILVER)	
17	2-187-927-31	CABINET (UPPER) (for BLACK, BLUE)	
17	2-187-927-41	CABINET (UPPER) (for SILVER)	
LCD1001	1-805-689-21	DISPLAY PANEL, LIQUID CRYSTAL	

6-2. CABINET LOWER SECTION



Ref. No.	Part No.	Description	Remark
51	X-2102-990-1	CABINET LOWER SUB ASSY (for BLACK)	
51	X-2102-992-1	CABINET LOWER SUB ASSY (for BLUE)	
51	X-2103-489-1	CABINET LOWER SUB ASSY (for SILVER)	
52	2-666-433-01	SHEET, SHIELD	
53	2-187-933-11	SPRING (–), COIL	
54	2-187-932-11	TERMINAL BOARD (+)	
55	3-245-331-02	INSULATOR	
56	3-559-407-21	CUSHION, STOPPER	
57	X-2108-142-1	MAIN BOARD, COMPLETE (for SERVICE)	(NF430: US)
57	X-2108-145-1	MAIN BOARD, COMPLETE (for SERVICE)	(NF430: UK)
57	X-2109-181-1	MAIN BOARD, COMPLETE (for SERVICE)	(NF431)
58	2-662-254-01	SPACER, HP JACK	
59	3-251-873-01	PSA, FLEXIBLE CABLE	
60	3-559-407-01	CUSHION, STOPPER (NF430: US)	

6-3. OPTICAL PICK-UP SECTION (CDM-3325ERV2)



Ref. No.	Part No.	Description	Remark
101	3-318-203-61	SCREW (B1.7X4), TAPPING	
⚠102	X-3383-995-1	OPTICAL PICK-UP (DAX-25EV)	
103	3-221-473-01	COVER, GEAR	
104	3-221-472-02	CHASSIS	
105	3-221-474-01	SPRING, SLED	
106	A-3331-663-A	SCREW (FEED) ASSY	
107	3-221-268-01	GEAR (B)	
108	3-221-475-01	SHAFT, STANDARD	
109	3-222-298-01	RACK	
110	3-222-299-01	SPRING, RACK RETAINER	
111	3-348-998-31	SCREW (M1.4X2.5), TAPPING, PAN	
M601	A-3608-777-A	MOTOR ASSY, TURN TABLE (SPINDLE)	
M602	A-3174-850-A	MOTOR ASSY, SLED	

MAIN

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA... : µA... uPA... : µPA...
  uPB... : µPB... uPC... : µPC...
  uPD... : µPD...
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	X-2108-142-1	MAIN BOARD, COMPLETE (for SERVICE)			(NF430: US)
	X-2108-145-1	MAIN BOARD, COMPLETE (for SERVICE)			(NF430: UK)
	X-2109-118-1	MAIN BOARD, COMPLETE (for SERVICE)			(NF431)
		**********			
	2-187-932-11	TERMINAL BOARD (+)			
	2-187-933-11	SPRING (–), COIL			
		< CAPACITOR >			
C101	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C102	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C103	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C104	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C105	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
					(NF430: US)
C106	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C107	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
					(NF430: US)
C108	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
					(NF430: US)
C109	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
					(NF430: US)
C110	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C113	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C114	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C115	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C116	1-126-208-21	ELECT CHIP	47uF	20%	4V
C117	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C118	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C119	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C120	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C121	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C122	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V
C123	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V
C124	1-100-385-11	CERAMIC CHIP	0.47uF		25V
C125	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C126	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C127	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C128	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C129	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C130	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C131	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C132	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			Remark
C133	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C134	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C135	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C136	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C137	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C138	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C139	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C140	1-100-415-11	CERAMIC CHIP	0.47uF	10%	6.3V
C141	1-100-415-11	CERAMIC CHIP	0.47uF	10%	6.3V
C142	1-164-858-11	CERAMIC CHIP	22PF	5%	50V
C143	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V
C144	1-164-845-11	CERAMIC CHIP	5PF	0.25PF	50V
C145	1-135-259-11	TANTALUM CHIP	10uF	20%	6.3V
C146	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C147	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C148	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C149	1-164-842-11	CERAMIC CHIP	2PF	0.25PF	50V
					(NF430: US)
C150	1-164-844-11	CERAMIC CHIP	4PF	0.25PF	50V
C155	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C156	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C160	1-218-990-11	SHORT CHIP	0		
C162	1-164-845-11	CERAMIC CHIP	5PF	0.25PF	50V
C164	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C201	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C202	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C205	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C206	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C207	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
					(NF430: US)
C207	1-115-156-11	CERAMIC CHIP	1uF		10V
					(NF430: UK/NF431)
C210	1-128-995-21	ELECT CHIP	100uF	20%	10V
C211	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C212	1-100-415-11	CERAMIC CHIP	0.47uF	10%	6.3V
C215	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C216	1-165-887-11	CERAMIC CHIP	0.22uF	10%	6.3V
C217	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C218	1-165-887-11	CERAMIC CHIP	0.22uF	10%	6.3V
C219	1-100-735-11	CERAMIC CHIP	10uF	20%	4V
C220	1-100-507-91	CERAMIC CHIP	4.7uF	20%	6.3V
C221	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C223	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V

Ref. No.	Part No.	Description			Remark
C224	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C225	1-165-887-11	CERAMIC CHIP	0.22uF	10%	6.3V
C226	1-100-415-11	CERAMIC CHIP	0.47uF	10%	6.3V
C227	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C228	1-100-966-11	CERAMIC CHIP	10uF	20%	10V
C229	1-100-415-11	CERAMIC CHIP	0.47uF	10%	6.3V
C230	1-100-415-11	CERAMIC CHIP	0.47uF	10%	6.3V
C231	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C232	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C233	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C234	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C235	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C249	1-100-539-11	TANTALUM CHIP	47uF	20%	6.3V
C252	1-100-539-11	TANTALUM CHIP	47uF	20%	6.3V
C253	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C254	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C256	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C257	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C258	1-164-933-11	CERAMIC CHIP	220PF	10%	50V
C259	1-164-933-11	CERAMIC CHIP	220PF	10%	50V
C263	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C270	1-100-966-11	CERAMIC CHIP	10uF	20%	10V
C400	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V (NF430: US)
C401	1-115-156-11	CERAMIC CHIP	1uF		10V (NF430: UK/NF431)
C402	1-115-156-11	CERAMIC CHIP	1uF		10V
C403	1-128-829-11	TANTALUM CHIP	220uF	20%	6.3V
C404	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C405	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C406	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V (NF430: UK/NF431)
C407	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C408	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C409	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C410	1-165-908-11	CERAMIC CHIP	1uF	10%	10V (NF430: UK/NF431)
C411	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C414	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C415	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C416	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C418	1-110-569-11	TANTALUM CHIP	47uF	20%	6.3V
C419	1-128-964-11	TANTALUM CHIP	100uF	20%	6.3V
C420	1-119-750-11	TANTALUM CHIP	22uF	20%	6.3V
C421	1-131-862-11	TANTALUM CHIP	47uF	20%	4V
C422	1-131-862-11	TANTALUM CHIP	47uF	20%	4V
C423	1-125-926-11	TANTALUM CHIP	4.7uF	20%	6.3V
C424	1-128-964-11	TANTALUM CHIP	100uF	20%	6.3V
C426	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C427	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
C428	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C429	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C430	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C432	1-128-964-11	TANTALUM CHIP	100uF	20%	6.3V
C433	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C434	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C435	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C436	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C437	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C438	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C439	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C442	1-110-569-11	TANTALUM CHIP	47uF	20%	6.3V
C443	1-110-569-11	TANTALUM CHIP	47uF	20%	6.3V
C444	1-100-539-11	TANTALUM CHIP	47uF	20%	6.3V
C445	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C448	1-110-569-11	TANTALUM CHIP	47uF	20%	6.3V
C450	1-128-964-11	TANTALUM CHIP	100uF	20%	6.3V
C452	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C601	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C602	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C603	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C604	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C605	1-119-750-11	TANTALUM CHIP	22uF	20%	6.3V
C607	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C608	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C609	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C610	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C611	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C614	1-164-858-11	CERAMIC CHIP	22PF	5%	50V
C681	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (NF430: US)
C682	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C683	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C684	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C801	1-100-945-11	CERAMIC CHIP	4700PF	20%	25V
C803	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C805	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (NF430: US)
C807	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (NF430: US)
C808	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C809	1-125-889-11	CERAMIC CHIP	2.2uF	10%	10V
C810	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C821	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C822	1-100-539-11	TANTALUM CHIP	47uF	20%	6.3V
C829	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C830	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C831	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C832	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C833	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C834	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C835	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C836	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C837	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C838	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C839	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C841	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C842	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C843	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C844	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C845	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C846	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C848	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C849	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C862	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C875	1-107-820-11	CERAMIC CHIP	0.1uF		16V

MAIN

Ref. No.	Part No.	Description			Remark
C883	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C891	1-119-750-11	TANTALUM CHIP	22uF	20%	6.3V
C892	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C893	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C895	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C896	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C897	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C898	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C899	1-107-820-11	CERAMIC CHIP	0.1uF		16V
CB605	1-112-063-11	CERAMIC CHIP	470PF	20%	50V
		< FILTER/DISCRIMINATOR/VIBRATOR >			
CF101	1-767-021-11	FILTER, CERAMIC			
CF102	1-795-323-11	FILTER, CERAMIC			
CF103	1-813-422-11	DISCRIMINATOR, CERAMIC			
CF104	1-577-262-11	VIBRATOR, CRYSTAL (75kHz)			
		< CONNECTOR >			
CN601	1-785-877-21	HOUSING, CONNECTOR 4P			
CN602	1-784-342-21	HOUSING, CONNECTOR 2P			
CN603	1-818-127-12	CONNECTOR, FFC/FPC (ZIF) 15P			
CN604	1-778-158-51	CONNECTOR, FFC/FPC (ZIF) 10P			
		< TRIMMER >			
CT101	1-141-615-21	CAP, ADJ			
		< DIODE >			
D101	6-500-169-01	DIODE	KV1610STL-G@1-2		
D102	6-501-063-01	DIODE	HV306CTRU-E (NF430: US)		
D103	8-719-066-14	DIODE	HSC277-TRF-E (NF430: US)		
D104	8-719-066-14	DIODE	HSC277-TRF-E (NF430: US)		
D105	6-501-063-01	DIODE	HV306CTRU-E		
D106	6-501-063-01	DIODE	HV306CTRU-E		
D107	8-719-420-87	DIODE	MA8130		
D108	8-719-988-61	DIODE	1SS355TE-17		
D202	8-719-059-53	DIODE	MA3J14700LS0		
D203	8-719-083-04	DIODE	RSB6.8STE61		
D204	8-719-083-04	DIODE	RSB6.8STE61		
D250	8-719-072-27	DIODE	MA2Z748001S0		
D251	6-500-540-01	DIODE	RB521S-30FTE61		
D402	6-500-483-01	DIODE	MA22D2800LS0		
D403	8-719-085-43	DIODE	MA2YD2300LS0		
D404	8-719-071-87	DIODE	MA785- (TX), SO		
D406	8-719-422-37	DIODE	MA8051		
D409	6-500-912-01	DIODE	MA2SD3100LS0		
D431	8-719-422-37	DIODE	MA8051		
D432	8-719-422-37	DIODE	MA8051		
D601	6-501-065-01	DIODE	HVL375CMKRF-E		
D602	6-501-065-01	DIODE	HVL375CMKRF-E		
D880	8-719-422-37	DIODE	MA8051		
D882	6-500-540-01	DIODE	RB521S-30FTE61		
		< FUSE >			
⚠F401	1-576-406-21	FUSE (1.4A/32V)			
		< FERRITE BEAD/JUMPER RESISTOR >			
FB202	1-414-813-11	FERRITE, EMI (SMD) (2012)			

Ref. No.	Part No.	Description	Remark
FB203	1-414-813-11	FERRITE, EMI (SMD) (2012)	
FB204	1-414-813-11	FERRITE, EMI (SMD) (2012)	
FB205	1-414-813-11	FERRITE, EMI (SMD) (2012)	
FB207	1-216-295-00	SHORT CHIP 0	
FB208	1-216-864-11	SHORT CHIP 0	
FB401	1-216-864-11	SHORT CHIP 0 (NF430: UK/NF431)	
FB300	1-216-864-11	SHORT CHIP 0	
FB301	1-218-990-11	SHORT CHIP 0	
FB306	1-400-851-11	EMI, FERRITE (SMD) (1005)	
FB800	1-216-864-11	SHORT CHIP 0 (NF430: UK/NF431)	
FB800	1-469-667-21	FERRITE, EMI (SMD) (1608) (NF430: US)	
FB801	1-400-851-11	EMI, FERRITE (SMD) (1005)	
FB802	1-400-851-11	EMI, FERRITE (SMD) (1005)	
FB803	1-400-851-11	EMI, FERRITE (SMD) (1005)	
FB804	1-400-851-11	EMI, FERRITE (SMD) (1005)	
FB805	1-481-073-11	EMI FERRITE (SMD) (1608)	
		< FILTER >	
FL101	1-781-765-31	FILTER, BAND PASS (NF430: US)	
FL102	1-236-711-21	FILTER, BAND PASS (NF430: UK/NF431)	
		< IC >	
IC101	6-706-435-01	IC TB2132FNG	
IC201	6-707-074-01	IC TB2173FTG	
IC250	6-709-318-01	IC XC6367A303MRN	
IC401	6-708-963-01	IC TB2169AFG (O)	
IC603	6-707-398-01	IC XC6213B212NR	
IC801	8-753-257-74	IC CXR721260-203R	
IC802	6-702-355-01	IC AK6510CL-L	
IC803	6-708-198-01	IC XC6219B272MR	
IC841	6-708-198-01	IC XC6219B272MR	
IC851	6-707-964-01	IC MSM56X16160J-20T3	
		< JACK >	
J301	1-818-805-11	JACK (🎧) (NF430: US/NF431)	
J301	1-818-810-21	JACK (🎧) (NF430: UK)	
J401	1-816-936-41	JACK, DC (DC IN 3V)	
		< COIL/JUMPER RESISTOR >	
L101	1-456-896-11	COIL, FERRITE-ROD ANTENNA	
L103	1-456-899-11	COIL, AIR-CORE (NF430: US)	
L104	1-456-898-11	COIL, AIR-CORE	
L105	1-419-135-21	INDUCTOR 27nH	
L106	1-469-846-11	INDUCTOR 47uH	
L107	1-469-846-11	INDUCTOR 47uH	
L108	1-469-846-11	INDUCTOR 47uH	
L109	1-469-846-11	INDUCTOR 47uH	
L250	1-481-063-11	INDUCTOR 22uH (4010)	
L401	1-419-354-21	COIL, CHOKE 22uH	
L402	1-400-145-21	INDUCTOR 47uH	
L404	1-428-912-21	COIL, CHOKE 10uH	
L405	1-400-145-21	INDUCTOR 47uH	
L406	1-400-145-21	INDUCTOR 47uH	
L407	1-400-145-21	INDUCTOR 47uH	
L408	1-216-295-00	SHORT CHIP 0	
L409	1-400-145-21	INDUCTOR 47uH	
L410	1-500-451-11	FERRITE, EMI (SMD) (4516)(NF430: UK/NF431)	
L411	1-500-451-11	FERRITE, EMI (SMD) (4516)(NF430: UK/NF431)	

When MAIN board is replaced or EEPROM (IC802) on the MAIN board is replaced, patch processing is needed.
Confirm about information of patch processing to each service headquarters.

Ref. No.	Part No.	Description				Remark
L412	1-400-145-21	INDUCTOR	47uH			
L413	1-400-784-21	INDUCTOR	4.7uH (NF430: US)			
L414	1-400-784-21	INDUCTOR	4.7uH (NF430: US)			
L415	1-400-784-21	INDUCTOR	4.7uH (NF430: US)			
L416	1-400-784-21	INDUCTOR	4.7uH (NF430: US)			
L421	1-216-296-11	SHORT CHIP	0			
L422	1-216-296-11	SHORT CHIP	0			
L423	1-216-296-11	SHORT CHIP	0			
L424	1-481-076-11	INDUCTOR	47mH (2016)			
		< TRANSISTOR >				
Q101	8-729-044-37	FET	2SK3019TL			
Q102	8-729-028-74	TRANSISTOR	DTA114TUA-T106			
Q103	8-729-051-23	TRANSISTOR	2SA2018TL			
Q104	8-729-602-21	TRANSISTOR	2SC4154-F			
Q250	8-729-052-37	FET	XP151A13A0MR			
Q251	8-729-051-23	TRANSISTOR	2SA2018TL			
Q401	8-729-028-92	TRANSISTOR	DTA144TUA-T106			
Q402	6-550-760-01	TRANSISTOR	2SA1363-T111-1E			
Q404	8-729-029-15	TRANSISTOR	DTC144TUA-T106			
Q405	6-550-859-01	FET	NTHD4508NT1G			
Q407	6-550-232-01	TRANSISTOR	2SA2029T2LQ/R			
Q411	6-551-139-01	TRANSISTOR	DTC115TE-TL			
Q412	8-729-928-70	TRANSISTOR	DTA143TE-TL			
Q701	6-550-875-01	TRANSISTOR	RT3T67M			
		< RESISTOR >				
R101	1-218-985-11	RES-CHIP	470K	5%	1/16W	
R102	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R103	1-218-985-11	RES-CHIP	470K	5%	1/16W	(NF430: US)
R104	1-218-985-11	RES-CHIP	470K	5%	1/16W	
R105	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	(NF430: US)
R106	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	(NF430: US)
R107	1-218-985-11	RES-CHIP	470K	5%	1/16W	
R108	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	(NF430: US)
R109	1-218-929-11	RES-CHIP	10	5%	1/16W	
R110	1-218-949-11	RES-CHIP	470	5%	1/16W	
R111	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R112	1-218-941-11	RES-CHIP	100	5%	1/16W	
R114	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R115	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R116	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R118	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R119	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	
R120	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R121	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R122	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R123	1-218-977-11	RES-CHIP	100K	5%	1/16W	
R124	1-218-945-11	RES-CHIP	220	5%	1/16W	
R125	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R126	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R128	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R129	1-218-945-11	RES-CHIP	220	5%	1/16W	
R130	1-218-945-11	RES-CHIP	220	5%	1/16W	
R131	1-218-945-11	RES-CHIP	220	5%	1/16W	
R132	1-218-990-11	SHORT CHIP	0 (NF430: UK/NF431)			
R133	1-216-864-11	SHORT CHIP	0			
R134	1-216-864-11	SHORT CHIP	0			
R140	1-218-990-11	SHORT CHIP	0			
R141	1-218-990-11	SHORT CHIP	0			
R142	1-218-990-11	SHORT CHIP	0			
R143	1-218-990-11	SHORT CHIP	0			
R201	1-216-789-11	METAL CHIP	2.2	5%	1/10W	
R202	1-216-789-11	METAL CHIP	2.2	5%	1/10W	
R210	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W	
R211	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R212	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R213	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W	
R214	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R215	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R216	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R217	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R220	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R221	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R230	1-218-977-11	RES-CHIP	100K	5%	1/16W	
R231	1-218-977-11	RES-CHIP	100K	5%	1/16W	
R232	1-216-864-11	SHORT CHIP	0			
R233	1-218-990-11	SHORT CHIP	0			
R235	1-218-990-11	SHORT CHIP	0			
R251	1-218-990-11	SHORT CHIP	0			
R252	1-218-990-11	SHORT CHIP	0			
R254	1-218-949-11	RES-CHIP	470	5%	1/16W	
R255	1-218-945-11	RES-CHIP	220	5%	1/16W	
R256	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R258	1-218-949-11	RES-CHIP	470	5%	1/16W	
R259	1-218-945-11	RES-CHIP	220	5%	1/16W	
R260	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R261	1-218-990-11	SHORT CHIP	0			
R262	1-218-990-11	SHORT CHIP	0			
R263	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R264	1-218-990-81	SHORT CHIP	0			
R267	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	
R268	1-218-990-11	SHORT CHIP	0			
R274	1-216-864-11	SHORT CHIP	0			
R275	1-216-864-11	SHORT CHIP	0			
R276	1-218-990-11	SHORT CHIP	0			
R402	1-218-985-11	RES-CHIP	470K	5%	1/16W	
R403	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R404	1-208-931-11	METAL CHIP	68K	0.5%	1/16W	
R405	1-208-911-11	METAL CHIP	10K	0.5%	1/16W	
R406	1-218-941-11	RES-CHIP	100	5%	1/16W	
R407	1-216-864-11	SHORT CHIP	0			
R410	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R411	1-218-990-11	SHORT CHIP	0			
R416	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R417	1-208-911-11	METAL CHIP	10K	0.5%	1/16W	
R422	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R423	1-218-981-11	RES-CHIP	220K	5%	1/16W	
R424	1-216-864-11	SHORT CHIP	0			
R425	1-218-981-11	RES-CHIP	220K	5%	1/16W	
R426	1-218-985-11	RES-CHIP	470K	5%	1/16W	
R431	1-218-990-11	SHORT CHIP	0			

MAIN

Ref. No.	Part No.	Description			Remark
R433	1-218-990-11	SHORT CHIP	0		
R434	1-218-990-11	SHORT CHIP	0		
R435	1-218-990-11	SHORT CHIP	0		
R436	1-218-990-11	SHORT CHIP	0		
R437	1-218-990-11	SHORT CHIP	0		
R438	1-218-990-11	SHORT CHIP	0		
R439	1-218-973-11	RES-CHIP	47K	5%	1/16W
R442	1-218-977-11	RES-CHIP	100K	5%	1/16W
R452	1-218-977-11	RES-CHIP	100K	5%	1/16W
R454	1-218-990-11	SHORT CHIP	0		
R455	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R457	1-216-864-11	SHORT CHIP	0		
R458	1-216-864-11	SHORT CHIP	0		
R459	1-218-990-11	SHORT CHIP	0		
R460	1-218-990-11	SHORT CHIP	0		
R461	1-216-864-11	SHORT CHIP	0		
R462	1-216-864-11	SHORT CHIP	0		
R463	1-216-295-00	SHORT CHIP	0		
R464	1-218-990-11	SHORT CHIP	0		
R465	1-218-990-11	SHORT CHIP	0		
R467	1-218-945-11	RES-CHIP	220	5%	1/16W
R468	1-218-981-11	RES-CHIP	220K	5%	1/16W
R470	1-218-973-11	RES-CHIP	47K	5%	1/16W
R473	1-216-864-11	SHORT CHIP	0		
R474	1-216-296-11	SHORT CHIP	0		
R480	1-218-977-11	RES-CHIP	100K	5%	1/16W
R482	1-218-969-11	RES-CHIP	22K	5%	1/16W
R601	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R602	1-218-990-11	SHORT CHIP	0		
R604	1-218-989-11	RES-CHIP	1M	5%	1/16W
R606	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R607	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R609	1-218-969-11	RES-CHIP	22K	5%	1/16W
R610	1-218-977-11	RES-CHIP	100K	5%	1/16W
R611	1-218-973-11	RES-CHIP	47K	5%	1/16W
R612	1-218-977-11	RES-CHIP	100K	5%	1/16W
R613	1-218-981-11	RES-CHIP	220K	5%	1/16W
R614	1-218-981-11	RES-CHIP	220K	5%	1/16W
R615	1-218-969-11	RES-CHIP	22K	5%	1/16W
R616	1-218-973-11	RES-CHIP	47K	5%	1/16W
R617	1-218-969-11	RES-CHIP	22K	5%	1/16W
R618	1-216-864-11	SHORT CHIP	0		
R619	1-218-973-11	RES-CHIP	47K	5%	1/16W
R620	1-218-977-11	RES-CHIP	100K	5%	1/16W
R623	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R630	1-216-295-00	SHORT CHIP	0		
R631	1-218-929-11	RES-CHIP	10	5%	1/16W
R634	1-218-990-11	SHORT CHIP	0		
R644	1-218-990-11	SHORT CHIP	0		
R647	1-218-989-11	RES-CHIP	1M	5%	1/16W
R681	1-218-985-11	RES-CHIP	470K	5%	1/16W
R682	1-218-985-11	RES-CHIP	470K	5%	1/16W
R683	1-218-977-11	RES-CHIP	100K	5%	1/16W
R684	1-218-985-11	RES-CHIP	470K	5%	1/16W
R685	1-218-977-11	RES-CHIP	100K	5%	1/16W
R686	1-218-985-11	RES-CHIP	470K	5%	1/16W
R801	1-216-295-00	SHORT CHIP	0		
R803	1-218-977-11	RES-CHIP	100K	5%	1/16W
R805	1-216-295-00	SHORT CHIP	0		
R809	1-218-990-11	SHORT CHIP	0		
R810	1-218-990-11	SHORT CHIP	0		
R811	1-218-989-11	RES-CHIP	1M	5%	1/16W
R812	1-218-953-11	RES-CHIP	1K	5%	1/16W
R813	1-218-990-11	SHORT CHIP	0		
R815	1-218-990-11	SHORT CHIP	0		
R816	1-218-990-11	SHORT CHIP	0		
R824	1-218-990-11	SHORT CHIP	0		
R825	1-218-990-11	SHORT CHIP	0		
R826	1-218-990-11	SHORT CHIP	0		
R854	1-216-295-00	SHORT CHIP	0		
R855	1-218-990-11	SHORT CHIP	0		
R856	1-218-933-11	RES-CHIP	22	5%	1/16W
R858	1-218-990-11	SHORT CHIP	0		
R859	1-218-990-11	SHORT CHIP	0		
R860	1-218-933-11	RES-CHIP	22	5%	1/16W
R865	1-218-990-11	SHORT CHIP	0		
R866	1-218-933-11	RES-CHIP	22	5%	1/16W
R867	1-218-933-11	RES-CHIP	22	5%	1/16W
R869	1-216-864-11	SHORT CHIP	0		
R871	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R872	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R873	1-218-953-11	RES-CHIP	1K	5%	1/16W
R874	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R887	1-218-977-11	RES-CHIP	100K	5%	1/16W
R891	1-216-864-11	SHORT CHIP	0		
R893	1-218-977-11	RES-CHIP	100K	5%	1/16W
R894	1-218-977-11	RES-CHIP	100K	5%	1/16W
R897	1-218-953-11	RES-CHIP	1K	5%	1/16W
		< COMPOSITION CIRCUIT BLOCK >			
RB601	1-233-969-11	RES, NETWORK (CHIP TYPE) 22K			
		< SWITCH >			
S801	1-762-805-41	SWITCH, PUSH (1 KEY) (OPEN)			
S802	1-572-922-11	SWITCH, SLIDE (HOLD)			
		< COIL/TRANSFORMER >			
T101	1-456-985-11	COIL, AM OSC			
T102	1-443-490-11	TRANSFORMER, IF (AM IFT)			
T103	1-443-599-11	TRANSFORMER, DC-DC CONVERTER			
		< THERMISTOR >			
TH401	1-805-719-11	THERMISTOR, POSITIVE			
		< VARISTOR >			
VDR401	1-801-864-21	VARISTOR, CHIP (1608)			
		< VIBRATOR >			
X601	1-813-421-21	VIBRATOR, CERAMIC (22.496MHz)			

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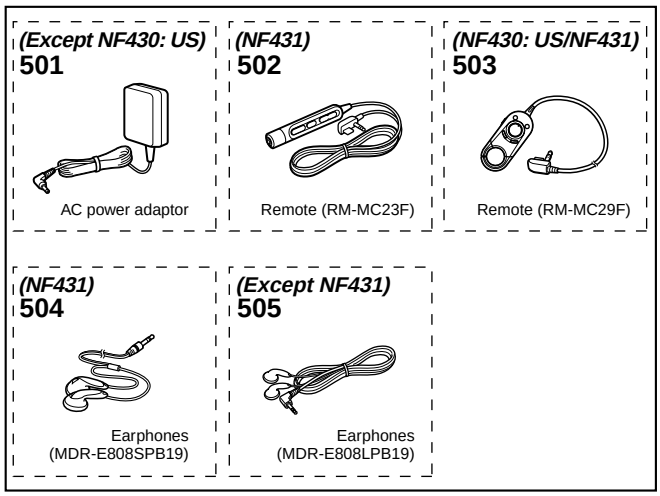
Ref. No.	Part No.	Description			Remark
	A-1152-105-A	SWITCH BOARD, COMPLETE			
		**********			
	1-831-830-11	FLEXIBLE FLAT CABLE (10 CORE)			
		< CAPACITOR >			
C1001	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1002	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1003	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1004	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1005	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1006	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1007	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1008	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1009	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1010	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1011	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1014	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1110	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
		< CONNECTOR >			
CN1001	1-778-171-51	CONNECTOR, FFC/FPC (ZIF) 23P			
CN1002	1-778-158-51	CONNECTOR, FFC/FPC (ZIF) 10P			
		< JUMPER RESISTOR >			
JC1001	1-216-296-11	SHORT CHIP	0		
		< LIQUID CRYSTAL DISPLAY >			
LCD1001	1-805-689-21	DISPLAY PANEL, LIQUID CRYSTAL			
		< RESISTOR >			
R1001	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1002	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1003	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1004	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1005	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1006	1-218-990-11	SHORT CHIP	0		
R1007	1-216-864-11	SHORT CHIP	0		
R1008	1-216-295-00	SHORT CHIP	0		
R1009	1-218-990-11	SHORT CHIP	0		
R1101	1-216-295-00	SHORT CHIP	0		
R1102	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1103	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1104	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1105	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1106	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1107	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1108	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1109	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1110	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1111	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1112	1-218-969-11	RES-CHIP	22K	5%	1/16W
R1113	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1114	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1118	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1120	1-218-990-11	SHORT CHIP	0		

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S1101	1-786-650-21	SWITCH, TACTILE (►II)	
S1102	1-786-650-21	SWITCH, TACTILE(RADIO ON/BAND, MEMORY)	
S1103	1-786-650-21	SWITCH, TACTILE (DISPLAY, MENU)	
S1104	1-786-650-21	SWITCH, TACTILE (►►I)	
S1105	1-786-650-21	SWITCH, TACTILE (I◄◄)	
S1106	1-786-650-21	SWITCH, TACTILE (TUNE+, GROUP+)	
S1107	1-786-650-21	SWITCH, TACTILE (TUNE–, GROUP–)	
S1108	1-786-650-21	SWITCH, TACTILE (■, RADIO OFF)	
S1109	1-786-650-21	SWITCH, TACTILE (∧, VOL+)	
S1110	1-786-650-21	SWITCH, TACTILE (∨, VOL–)	
S1111	1-786-650-21	SWITCH, TACTILE (SERACH)	
		< VARISTOR >	
VDR1002	1-803-742-21	VARISTOR, CHIP	
**********			
		MISCELLANEOUS	
		**********	
⚠102	X-3383-995-1	OPTICAL PICK-UP (DAX-25EV)	
M601	A-3608-777-A	MOTOR ASSY, TURN TABLE (SPINDLE)	
M602	A-3174-850-A	MOTOR ASSY, SLED	
**********			
		ACCESSORIES	
		**********	
	2-663-956-11	MANUAL, INSTRUCTION (ENGLISH)	
	2-663-956-71	MANUAL, INSTRUCTION (SIMPLIFIED CHINESE) (NF431)	
⚠501	1-477-732-12	ADAPTOR, AC (AC-ET305K) (NF430: UK)	
⚠501	1-477-738-22	ADAPTOR, AC (AC-ET305K2) (NF431)	
502	1-478-401-11	REMOTE CONTROL UNIT (RM-MC23F) (NF431)	
503	1-478-405-11	REMOTE COMMANDER (RM-MC29F) (NF430: US/NF431)	
504	8-912-743-90	EARPHONES MDR-E808SPB19 SET (NF431)	
505	8-912-744-90	EARPHONES MDR-E808LPB19 SET (NF430)	



REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2005.12	New